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Food Stamp SSI/Elderly Cashout Demonstration Evaluation

Final Report

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FINAL REPORT

FOOD STAMP SSI/ELDERLY CASHOUT

DEMONSTRATION EVALUATION

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This report presents the findings of the Food Stamp SSI/Elderly Cashout Demonstration Evaluation performed for the U.S. Food and Nutrition Service by Mathematica Policy Research and its subcontractors, Boston Nutrition Associates and Coopers & Lybrand. Chapters I, II, IV, VI, VII, and IX were prepared by James Ohls. Chapter III was prepared by Russell Jackson. Chapter V was prepared by J.S. Butler and Mr. Ohls. Chapter VIII was prepared by Barbara Posner and Mr. Ohls, and Chapter X was prepared by Pat Doyle. Volume II, which includes methodological appendices, was prepared by the authors of the corresponding sections in the main volume. Volume III, a description of the survey operations, was prepared by Lois Blanchard and Mr. Jackson.

George Carcagno, who served as MPR's Project Director during the first year of the work, contributed substantially to the initial project design and to a number of later key design decisions. Mr. Ohls was Project Director for the remainder of the project and was also Principal Investigator. The Survey Director was Mr. Jackson, and Ms. Blanchard was Survey Manager. Louise Shaw was Project Manager.

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EXECUTIVE SUMMARY

OVERVIEW

Many of the country's elderly face the problems of poor health, poor nutrition, and inadequate income. Nutrition is among the many factors that affect the health and longevity of older persons. Nutrition is believed to significantly influence both morbidity and mortality. Ensuring that the elderly have sufficient resources to purchase an adequate diet is therefore an important public concern.

This executive summary presents the findings of the evaluation of the Food Stamp SSI/Elderly Cashout Demonstration conducted by the U.S. Department of Agriculture, Food and Nutrition Service. The demonstration was designed to examine ways to better meet the needs of the elderly in the Food Stamp Program. Households whose members were all 65 years old or older and/or participated in the Supplemental Security Income (SSI) Program received cash food stamp benefits in the form of checks rather than in the form of food coupons. At four of the eight demonstration sites, food stamp applications from demonstration participants were also taken at Social Security offices. Two states in the nation, California and Wisconsin, have provided cash payments to the recipients of SSI benefits by using automatic flat-grant food stamp payments. In contrast to those procedures, households in the demonstration sites had to apply for food stamp benefits in order to receive checks, and benefits were determined using the standard program benefit determination formula.

In order to separate out the effects of cashout from the effects of other program and economic changes occurring during the demonstration period, it was useful to obtain comparison data from a number of sites which were similar to the demonstration sites but where cashout was not implemented. Eight sites served as comparison sites. In the comparison sites, no changes were introduced. However, the processing of food stamp applications at Social Security offices that was scheduled to be implemented as the result of an independent policy change was delayed.

In addition to the demonstration and comparison sites, certain other sites were designated as supplemental data sites for purposes of the demonstration evaluation. These supplemental sites continued to use coupons but, unlike the comparison sites, did implement the processing of food stamp applications at Social Security offices.

The first demonstration sites began program operations in April 1980, and the demonstration evaluation period covered in this report lasted through the summer of 1981. As a result of legislation enacted during the demonstration, Food Stamp Program benefits are still being distributed in the form of checks rather than as coupons at the demonstration sites.

The major findings of the demonstration evaluation are summarized below. In assessing these results, it should be noted that, as with any social program evaluation, findings of the study must be interpreted as approximations of

likely policy outcomes. Many design choices had to be made at various stages of the evaluation. While careful analysis has led to the conclusion that the findings are sound, it is possible that some results could have been affected both by these choices and by other factors relating to the evaluation itself. For example, while efforts were made to match pairs of demonstration and comparison sites as closely as possible, neither perfect matching nor random assignment to experimental status was practical. Another factor to consider in this regard is the fact that resource constraints limited survey data collection to only three pairs of sites. Similarly, parts of the analysis are based on survey data and, therefore, are subject to both sampling and reporting error, and to non-response bias. Potential reporting mistakes by sites with regard to administrative costs and aggregate participation data are other examples of problems summarized in the study's final report. The potential implications of these and similar problems were examined in considerable detail during the course of the study. As discussed in the report, the available evidence from that analysis suggests that these limitations have not substantially affected key conclusions of the project. We believe, therefore, that, despite these potential limitations, the findings presented below are, in all likelihood, reliable indicators of the potential effects of the cashout program tested during the demonstration.

ADMINISTRATIVE PROCESSES AND COSTS

The demonstration sites included two entire states, Utah and Vermont, and portions of six others. In general, existing computer software—either that used for Authorization to Purchase (ATP)/coupon issuance or that used in other public assistance programs—was adapted to establish procedures for issuing food stamp benefits by check. Program staff at the sites reported that start-up procedures were relatively easy to implement. Key activities involved in beginning the demonstration included adapting existing computer programs to issue checks, identifying eligible participants from program files, and training staff in new procedures. Start-up costs estimated by site staff range from about $12,000 to $90,000 per site.

All but one of the sites were able to estimate the cost per issuance of cashout as compared with regular ATP and/or coupon issuance procedures.[1/] As shown in Table 1, the estimated cost of check issuance was lower at each of these sites, with the potential cost savings attributed to cashout (if the entire caseload was to receive checks) ranging from $.32 to $1.20 per issuance, which is approximately 36 percent of average coupon issuance costs. The sources of potential savings from using checks rather than ATPs or coupons for benefit issuance include: (1) elimination of ATP transaction or redemption fees at sites using ATPs; (2) elimination of labor costs associated with coupon handling in direct mail sites; (3) reduced security requirements; and (4) postage savings

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1/ One site (Minnesota) was unable to supply separate cost estimates for the two types of issuance. However, it estimated that actual costs per issuance had been somewhat higher with cashout. This was attributed to the small scale of the cashout operation and was not believed to be indicative of the relative costs of implementing cashout on a larger scale.

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TABLE 1

SITE STAFF ESTIMATES OF THE MONTHLY COST OF PER HOUSEHOLD BENEFIT ISSUANCE AND OF POTENTIAL SAVINGS FROM CASHOUT

Site	ATP/Coupon Issuance	Cashout Check Issuance	Potential Savings with Cashout 1/	
			Dollars	Percentage
Minnesota	NA	NA	NA	NA
Ohio	$1.20	$ .26	$ .94	78%
Oregon	1.46	1.11	.35	24
New York	1.58	.57	1.02	64
South Carolina	2.31	1.95	.36	16
Utah	1.41	1.09	.32	23
Vermont	1.44	.94	.50	35
Virginia	3.50	2.30	1.20	34
AVERAGE	1.84	1.17	.67	36

NA = not available.

1/ Not all the potential savings from cashout were actually realized during the demonstration because coupon-related procedures had to be retained for those segments of the caseload that have not been cashed out.

in direct issuance sites because checks are less costly to mail than the heavier food coupon books. With regard to reduced security requirements, it should be noted that checks must also be handled in a secure fashion. However, because checks in general require less handling than do ATPs and coupons, the security costs associated with them are lower.

It is important to note that, in some sites, actual savings during the demonstration were less than those suggested by the unit cost differences shown in the table because both cashout and non-cashout systems have had to be maintained simultaneously. In sites with ATP issuance procedures, however, substantial actual savings have been realized as a result of the demonstration, due to the elimination of ATP transaction fees, which are $.75 or more per case per month in several sites. To some degree these issuance cost savings may have been offset by costs to cashout program participants in the form of check-cashing fees. However, survey data collected during the evaluation suggest that only about 3 percent of these households had to pay fees in order to cash their checks.

After the first few months of the demonstration, it became apparent that the volume of Food Stamp Program client intake at Social Security offices was extremely low at the four demonstration sites where applications were being taken at Social Security offices. As a result, this component of the demonstration policy was reduced or discontinued at some of these sites, and the main focus of the evaluation became an examination of the effects of cashout.

CHARACTERISTICS OF DEMONSTRATION PROGRAM PARTICIPANTS

The cashout caseload at the eight demonstration sites included approximately 35,000 households. Thirty-five percent of the households that participated in the demonstration consisted of SSI recipients who were 65 years old or older. Thirty percent were elderly households that did not receive SSI, and the remaining 35 percent were in the SSI blind and disabled category. Most of the participating households (90 percent) consisted of single persons living alone, and 72 percent were headed by women. Approximately two-thirds of the participants were white; most of the remaining households were black. Average Food Stamp Program benefit levels were $40 for the SSI aged category, $37 for the non-SSI aged category, and $44 for the SSI blind and disabled category. Average gross income levels for the three categories were $270, $312, and $262, respectively. The average ratios of gross income to poverty levels were .73, .81, and .71.

CHANGES IN NUMBERS OF HOUSEHOLDS PARTICIPATING IN THE PROGRAM

Analysis of monthly aggregate participation data suggests that the cashout demonstration had, at most, a very modest effect on participation in the Food Stamp Program by households eligible for cashout. During the period covered by the analysis, the number of participants among households eligible for cashout increased at the demonstration sites by an average of 9.5 percent. Over the same period, participation increased at comparison sites by 7.0 percent. The difference in the two rates of increase is not statistically significant. When disaggregate data are examined, there is evidence that the demonstration program may have had some effect on participation for one of the three population target groups—the non-SSI aged category. Participation with this category increased

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TABLE 2

PARTICIPATION RATE ESTIMATES FOR ELDERLY HOUSEHOLDS

Site	SSI Recipient Households	Non-SSI Recipient Households	All Households
New York Demonstration Site (Monroe County, including Rochester)	.84	.35	.59
New York Comparison Site (Albany County)	.84	.17	.28
South Carolina Demonstration Site (2 rural counties)	.78	.37	.58
South Carolina Comparison Site (2 rural counties)	.82	.36	.60
Oregon Demonstration Site (Multnomah County, including Portland)	.75	.33	.44
Oregon Comparison Site (Lane County, including Eugene)	.72	.27	.40
AVERAGE	.76	.31	.48

by 13.2 percent at the demonstration sites during the period. The comparable measured change at comparison sites was 4.6 percent, and the difference between the changes at the demonstration and comparison sites is statistically significant. Observed differences for the other two target groups are very small.

Results similar to those outlined above are obtained when comparison sites and supplemental sites are combined to form the reference group for the analysis.

ESTIMATED FOOD STAMP PROGRAM PARTICIPATION RATES

Food Stamp Program participation rates among elderly households eligible for the program were estimated using survey data collected as part of the evaluation at three of the demonstration sites and their paired comparison sites. The average across the six sites of the estimated participation rates among eligible households is .48 (Table 2). This is consistent with current national estimates that the Food Stamp Program participation rate among eligible elderly households is approximately .50.

Participation rates varied substantially depending on whether households were receiving SSI. Among SSI recipient households, the estimated rates range from .64 to .84. The comparable range for non-SSI households is .17 to .37. The higher rates for SSI households may be due to the fact that, on average, they have lower incomes than the non-SSI households and are more in need of assistance. Referrals between the SSI program and Food Stamp Program may also be a factor in this regard.

Among the elderly households included in the survey, the average eligible nonparticipant household had a gross monthly income of $367 and was entitled to a monthly Food Stamp Program allotment of $33. Of the eligible nonparticipants, 38 percent of one-person households and 25 percent of multi-person households were entitled to monthly benefits in excess of $40.

Lack of awareness of program eligibility may be an important factor that results in nonparticipation by eligible households. Thirty-three percent of eligible nonparticipants in the survey indicated that they did not think they were eligible for food stamps, and another 36 percent said that they did not know whether they were eligible.

Stigma also appears to be a barrier to participation in some cases. Thirty-two percent of nonparticipants indicated they would be embarrassed to tell a friend they were receiving food stamps, as compared with 19 percent of participants. Probit analysis results show that, after controlling for other determinants of participation, expressing embarrassment is associated with a statistically significant 10 percentage point lower probability of participation.

Distance to Food Stamp Program offices also appears to be a significant deterrent to participation. Households located within one mile of a program office have a statiatically significant higher probability of participating.

In addition to the above factors, the following variables were found to have statistically significant effects on the probability of participation: households with male heads have lower participation probabilities; higher income

results in lower participation probabilities; having at least some high school education lowers probabilities; and being older lowers probabilities.

The data collected in the current survey provide a convenient basis for examining the impacts of an automatic cashout program for SSI recipients, such as the plans now in effect in California and Wisconsin. In simulating the effects of such a plan with the survey data, it was found that, even if benefit levels were set 50 percent higher than current flat-grant benefit levels in California and Wisconsin ($15 as compared with $10), switching a flat-grant food stamp cashout plan for SSI recipients would reduce average food stamp benefits received by the elderly households effected by the change. In addition, the households most likely to receive lower benefits as a result of such a change are those with the lowest income levels.

PROGRAM EFFECTS ON FOOD EXPENDITURES AND NUTRIENT INTAKE

Food Stamp Program benefits increased food expenditures for households in the survey sample, and the estimated effect is statistically significant. However, apparently there is considerable substitution of food stamp benefits for money that households would have spent on food in the absence of the program. For each additional dollar of food stamp benefits, the estimated increase in food expenditures is 14 cents. An additional dollar of food stamp benefits is estimated to increase food expenditures somewhat more than an additional dollar of regular income. However, the difference is not statistically significant.

Impacts on food expenditures do not appear to be significantly lower in cashout sites than they are in the comparison sites. Indeed, for some equation specifications, estimated program impacts are somewhat higher for the cashout sites, although the differences are not statistically signficiant.

For the elderly households included in the sample, food expenditures tend to rise as income increases, but they do not rise proportionately to income. Therefore, the ratio of food expenditures to income tends to go down as income levels rise. Tabular analysis shows no substantial relationships between income and nutrient intake. On average, the households in the sample spend about 29 percent of their incomes (including the value of food stamp benefits) on food.

Dietary intake was also studied for elderly households in the sample. At the comparison sites, after using regression analysis to control for the effects of other variables, there were no statistically significant differences between program participants and eligible nonparticipants in the intakes of the nine nutrients studied. At the cashout sites, after controlling for the effects of other variables, participants were found to have statistically significant higher levels of intake than nonparticipants for four of the nine nutrients studied. Thus, there is no evidence in the data that cashout weakens the link between program benefits and dietary intake.

When data are pooled across comparison and demonstration sites in performing the regression analysis, the estimated effects of the program on dietary intake are positive for all of the nutrients, but are only statistically significant for one of them, calcium.

ATTITUDES TOWARD CASHOUT

Information about cashout was included in the standard outreach programs conducted at demonstration sites. Nevertheless, only 50 percent of eligible nonparticipants at the demonstration survey sites reported having heard of the cashout program. This suggests that one explanation for the very limited effects of cashout on participation may be that substantial numbers of potential participants are unaware of the program.

Of respondents who expressed opinions about cashout, substantial majorities stated that they preferred distribution of food stamp benefits by check rather than by coupons. For both groups, the main reason was that checks were perceived to be more convenient or easier to use. Substantial numbers of respondents also mentioned as an advantage of cashout the fact that checks could be used to purchase anything. Twenty-two percent of participants and 30 percent of nonparticipants mentioned stigma-related factors, such as checks being less visible or not making the user feel embarrassed, as reasons for preferring checks.

The consensus among the site project staff interviewed was that the cashout demonstration was successfully implemented. The reduced transaction and redemption fees in ATP issuance sites and the lower postage and security costs in direct coupon issuance sites were seen by program staff as potential major advantages of cashout. In addition, staff at several sites believed that check issuance reduced the number of benefit replacement requests and tightened control of possible fraud by leaving better audit trails.

ACCURACY OF ASSUMPTIONS USED IN CURRENT FOOD STAMP PROGRAM ELIGIBILITY ESTIMATION PROCEDURES

Data collected in the evaluation survey were used to examine the effects of using retrospective income data to simulate Food Stamp Program eligibility. This is of interest because the methods currently used to estimate program eligibility and participation rates are forced by data limitations to rely on retrospective income data to simulate the prospective income concept actually used by the program.

The results of the analysis suggest that, at least for the elderly population in the current study, incomes are quite stable, and the use of retrospective data does not have a substantial effect on estimated eligibility rates. It appears that the use of retrospective data produces fewer eligible households, on average, than does the use of current prospective income, but the level of discrepancy is a small percentage of the estimated population. When viewed as a proportion of the simulated eligibles, the estimated discrepancy rate is approximately 3.5 percent.

SUMMARY

In summary, the cashout procedures were easily implemented, and produced a cost savings ranging between $.32 and $1.20 per issuance, or approximately 36 percent of average issuance costs. Cashout demonstrated, at most, a very modest effect on the participation of eligible elderly households. Only the non-SSI aged category increased participation at a level that was statistically significant.

There was no evidence in the data that cashout weakens the link between program benefits and dietary intake. Food Stamp Program benefits, in the form of coupons or cash, increased the food expenditures for households in the survey

sample. The impacts of benefits on food expenditures by households in the cashout demonstration sites did not appear to be significantly lower than in comparison sites, and, for some equation specifications, the impacts on food expenditures were higher for cashout households than for coupon households.

The demonstration data permitted an estimate of the rate of participation among eligible elderly SSI and non-SSI households in the Food Stamp Program. Overall, 48 percent of eligible elderly households participate. This number varies significantly between SSI and non-SSI recipients. The estimated rate of participation is between .84 and .84 for the former, and between .17 and .34 for the latter. Several factors were identified as affecting the decision to participate, including lack of awareness of eligibility, stigma, distance to the Food Stamp Program office, being a male-headed household, having a higher income or some high school education, and being older.

Both recipients and site project staff supported the concept of cashout. Checks were perceived by recipients as being more convenient or easier to use and created less stigma than did coupons. Site project staff cited lower security and postage costs, reduced requests for replacing checks, and tighter audit trails in support of the cashout concept.

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CHAPTER I:
INTRODUCTION

Many of the country's elderly are faced with the problems of poor health, poor nutrition and inadequate income. Among the many factors that affect the health and longevity of older persons, nutrition is believed to have extensive effects on both morbidity and mortality.

The Food Stamp Program is a major public program that can stretch the income of older persons and increase their buying power by providing money for the purchase of food. It appears, however, that large numbers of older persons who are eligible for food stamps have been reluctant to participate in the program. Possible explanations include the stigma of welfare, lack of transportation to Food Stamp Program offices, fear of traveling to an assistance office, and the unwillingness of some merchants to accept coupons. Despite outreach efforts, only an estimated 38 percent of eligible persons over age 64 participated in the Food Stamp Program before the implementation of the Food Stamp Act of 1977 (Beebout and Kendall, 1979).

The 1977 law took a positive step toward increasing participation by eliminating the food stamp purchase requirement.[1/] Nevertheless, only about one-half the eligible elderly are currently believed to be participating in the program nationally.

In order to obtain information about possible ways to help the program better serve the elderly, Section 17(b)(1) of the Food Stamp Act of 1977 authorized

> experimental projects designed to test program changes that might increase the efficiency of the Food Stamp Program and improve the delivery of food stamp benefits to eligible households, all of whose members are age 65 or over or entitled to Supplemental Security Income benefits under Title XVI of the Social Security Act.

In response to this legislation, the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture conducted the Food Stamp SSI/Elderly Cashout Demonstration in eight sites across the country. At each of the eight sites, households eligible for the demonstration program (all of whose members were over 64 years old and/or received Supplemental Security Income (SSI)

[1/] Prior to the Food Stamp Act of 1977, households were allocated food stamp coupons in amounts equal to the estimated cost of a nutritionally adequate diet, but were, in most cases, required to pay a portion of the face value of the coupons in order to obtain them. As a result of the 1977 law, households now receive, without having to pay for them, coupons equal in value to the difference between the face value of the coupons and the former purchase requirement.

income] were issued their food stamp benefits as money in the form of checks rather than food coupons.[1/] In four of the eight demonstration sites, participants also were allowed to apply for food stamps at Social Security offices. Eight additional sites served as comparison sites. In the comparison sites, no changes were introduced, and the processing of food stamp applications at Social Security offices that was scheduled to be implemented as a result of an independent policy change was delayed.

In addition to the demonstration and comparison sites, certain other sites were designated as supplemental data sites for purposes of the demonstration. These supplemental sites continued to use coupons but, unlike the comparison sites, did implement the processing of food stamp applications at Social Security offices.

Recent cashout procedures used in California and Wisconsin have used automatic flat-grant food stamp payments for SSI households. In contrast to those procedures, under the demonstration program, households had to apply for food stamp benefits in order to receive checks. Also, the standard program benefit determination formula was used to determine benefits.

The first demonstration sites began program operations in April 1980, and the demonstration evaluation period covered in this report extended through the summer of 1981. Food Stamp Program benefits are still being distributed in the form of checks rather than coupons at the demonstration sites and joint processing of Food Stamp Program applications at Social Security offices has been implemented.

Mathematica Policy Research [MPR] and its subcontractors, Boston Nutrition Associates and Coopers & Lybrand, were chosen by FNS to evaluate the results of the demonstration. The primary objectives of the research were: [1] to evaluate the demonstration policies—replacing the food coupons with cash and accepting program applications in offices of the Social Security Administration; [2] to determine the impact of these changes on program administration; [3] to gain a better understanding of the determinants of program participation; [4] to identify any link[s] between program participation and food expenditures and dietary intake, and between the form of benefits [check or coupons] and dietary intake; and [5] to evaluate assumptions underlying Food Stamp Program participation rate estimation methods being used for program planning purposes.

After the first few months of the demonstration, it became apparent at the four demonstration sites where applications were being taken at Social Security

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1/ The demonstration was limited to households in which all persons were either 65 or older and/or were receiving SSI. Households which included persons under 65 who did not receive SSI were not eligible for the demonstration. It should be noted that the 65 year old age eligibility criterion used in the demonstration differs from the 60 year old criterion which is used to define the elderly population for some other aspects of the Food Stamp Program. At least in part, the 65 year old criterion was chosen in its present context for consistency with the age definitions used in the SSI program.

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VIII to examine impacts of the Food Stamp Program on food expenditures and nutrient intake among elderly households in the survey sites. Both the effects of coupons and the effects of benefits in the form of checks are examined. Chapter IX describes the opinions about cashout held by eligible households and program staff members.

The report concludes with Chapter X in which eligibility determinations based on previous year's annual income data are compared with eligibility determinations based on current prospective monthly income data. This work is of interest in assessing possible errors in present procedures for estimating national program eligibility and participation rates because data limitations currently force these estimates to rely on retrospective annual income data.

CHAPTER II: OVERVIEW OF THE DEMONSTRATION DESIGN

In order to assess the evaluation findings properly, it is best to consider them within the context of the demonstration. The key research questions the demonstration was designed to answer are listed below, followed by a description of the principal data collection procedures that were used. The various sample sizes and the site selection process are also discussed.

KEY RESEARCH QUESTIONS

The demonstration evaluation dealt with the following questions concerning the effects of issuing Food Stamp Program benefits in the form of checks rather than coupons. [1/]

1. How does switching from coupons to checks affect program administration costs? Assessing impacts on costs was clearly one important component of the overall evaluation of cashout. Of particular interest was whether switching to checks could reduce issuance costs by simplifying benefit issuance procedures.

2. What are the characteristics of those program participants affected by cashing out food stamps for SSI recipients and the elderly? Participant characteristics provide policy makers with useful information about the groups affected by the demonstration.

3. What effect does cashout have on participation in the Food Stamp Program? The use of checks rather than coupons may reduce stigma associated with program participation for some people and thus could lead to higher participation rates. Possible effects in this area were assessed during the evaluation.

4. Does switching to cashout decrease the Food Stamp Program's impacts on food expenditures and nutrient intake? There was initial concern that cashout would weaken the link between the program and food consumption, thereby decreasing program

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[1/] As previously indicated, the original demonstration design included an examination of the effects of accepting program applications at Social Security offices. However, the policy-relevance of this research was greatly reduced when joint processing of applications at Social Security offices was initiated as a national policy. Moreover, low demand for this service led sites to reduce or recall their outstationed workers. As a result, the final evaluation focused almost entirely on the effects of cashout.

impacts on food expenditures and nutrient intake. The evaluation was structured to assess whether this would happen.

5. How do program staff and participants feel about the desirability of cashout versus coupon issuance? In order to fully assess the cashout concept, it was important to examine the attitudes of both program staff and participants with regard to benefit issuance by check.

It was decided to examine certain other research issues of interest, not directly related to the effects of cashout, because they could be so easily addressed within the context of the overall demonstration evaluation. These supplementary questions were:

6. What are the overall Food Stamp Program participation rates among eligible elderly households? The Food Stamp Program has been particularly concerned with meeting the needs of the nation's elderly. Current national estimates place the overall participation rate among elderly households at approximately 50 percent. One objective was to obtain information that would permit an assessment of the accuracy of this estimate.

7. What are the principal reasons for nonparticipation among eligible elderly households? In order to improve the ways the Food Stamp Program meets the needs of the elderly, it was necessary to determine why the eligible elderly choose not to participate.

8. How accurate are program eligibility rate estimates based on previous year's annual income data? Because of data limitations, most national estimates of Food Stamp Program eligibility rates are based on household annual income data for the previous year rather than on prospective income, which the Food Stamp Program uses to determine eligibility. It was therefore of interest to assess the reliability of eligibility estimates based on previous year's income.

DESIGN CONSIDERATIONS

Addressing the research questions outlined above required both descriptive analysis of various aspects of cashout, such as characteristics of participating clients, and also behavioral analysis concerning possible effects of cash benefits with regard to such variables as program participation and food consumption. Descriptive questions could be examined simply by obtaining the relevant data at the demonstration sites where cashout was implemented. However, in order to conduct the behavioral analysis, it was necessary to obtain data with which to make explicit comparisons between cashout and non-cashout settings.

Two basic approaches to structuring these comparisons were possible, one based on longitudinal data and one based on a cross section approach. Under the longitudinal approach, data on key behavioral issues could have been obtained at

demonstration sites prior to and after the implementation of cashout, and the analysis could then have used the pre-cashout data as a reference point against which to assess the effects of cashout. However, while this alternative would have been possible, it was rejected for two important reasons. First, there was concern that other possible changes that might have occurred in the Food Stamp Program or in the economy during the demonstration period might have made it difficult, using the longitudinal approach, to isolate the impacts of cashout from the effects of other factors. Second, obtaining the appropriate pre-cashout data could have delayed the implementation of the demonstration.

In view of these potential problems with the longitudinal approach, it was decided to focus the behavioral analysis on comparisons between demonstration sites and similar comparison sites in which cashout would not be implemented. The basic approach used was to collect comparable data on key behavioral variables such as program participation, food expenditures, and dietary intake at both demonstration and comparison sites, and then to use the data from the different types of sites to assess the effects of cashout. The sections below discuss the data collection and sample selection procedures which were used within the context of this overall approach.

DATA COLLECTION PROCEDURES

The different types of data collection procedures described below were used to obtain information that would help answer the research questions. Relationships between the research questions and the various information sources are summarized in Table II.1. Issues related to the number of sites and the sample sizes used for the evaluation are also discussed. [Additional details with regard to the data collection methods can be found in the respective chapters where results based on these sources are presented.]

Executive Interviews

It was determined at the outset of the evaluation that the site cost data which were to be compiled during the demonstration for administrative purposes would not be sufficiently detailed to allow direct comparison of coupon versus cashout issuance costs. Nor was it feasible with the resources available for this component of the evaluation to perform detailed work measurement studies to measure issuance costs. Therefore, administrative cost data were obtained through executive interviews of program staff at each of the demonstration sites. These interviews, based on detailed research outlines developed prior to the interviewing, provided data about the procedures that were set up to implement cashout and about their costs. Data on staff attitudes toward cashout also were obtained during these interviews.

Case Records Data

Descriptive analysis of the characteristics of the households affected by cashout required detailed data about individual program participants. The most efficient way to obtain these data was to abstract case records information. This was done for each of the demonstration sites.

Aggregate Participation Data

In order to analyze program effects on participation, monthly data were obtained from all demonstration, comparison, and supplemental sites with regard to the sizes of caseloads eligible for cashout.

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TABLE II.1

RESEARCH ISSUES AND DATA COLLECTION METHODS

Research Issue	Interviews of Program Staff at Sites	Case Records Abstraction	Participation Data for Administrative Records	Household Survey
1. Effects on administrative costs	x			
2. Characteristics of participants		x		x
3. Effects on participation			x	
4. Effects on food expenditures and nutrient intake				x
5. Staff and participant opinions	x			x
6. Overall participation rates among the elderly				x
7. Reasons for nonparticipation				x
8. Accuracy of eligibility estimates based on previous year's income				x

Household Interview Data

Analysis of the effects of cashout with regard to food expenditures and nutrient intake required detailed data on these variables, both for food stamp participants and for eligible nonparticipants. Because no such data were available in program case records files, household survey methods were used to obtain this information. The household survey also gathered information on client attitudes toward cashout, on eligibility rules and reasons for nonparticipation, and on previous year's annual income.[1/]

DEMONSTRATION SITES AND SAMPLE SIZES

The demonstration was conducted at eight sites. Eight comparison sites and five supplemental sites also supplied information. This section discusses the issues considered in selecting the number of sites.

The number of sites available for analysis was most important to the examination of program effects on participation. As indicated in the previous section, the analysis of the effects of cashout on program participation was based on aggregate site participation data. It is of interest to consider the implications of the number of sites with regard to the power of the analysis of demonstration program effects on participation.

It was understood from the outset of the demonstration that eight pairs of demonstration/comparison sites could not provide enough data to reliably detect relatively minor effects of cashout on participation levels. This sample size was, however, sufficient for detecting effects of 11.6 percent or more with a relatively high probability, and it allowed for considerable probability of detecting effects as small as 7 percent.[2/] Because FNS expected effects larger than this, and because effects smaller than these were of limited policy interest, FNS felt that eight pairs of demonstration and comparison sites represented a reasonable compromise between statistical precision and cost considerations.

[1/] These data were insufficient for analyzing client characteristics because resource limitations made it necessary to restrict the survey to elderly participants in only three demonstration sites.

[2/] The sample size of eight pairs of sites was sufficient to allow a 90 percent power level in testing the hypothesis of no difference in effects on overall participation rates between demonstration and comparison sites, assuming the true difference was 11.6 percent and assuming a .05 level two-tailed test. This power level was computed in the following way: the standard error of the estimated demonstration/comparison site difference in overall participation shown in Table V.2 is 3.57 percentage points. Thus, the test statistic cutoff level for a .05 level two-tailed test is 1.96 times 3.57 or 7.00 percentage points. The point on the cumulative standard normal distribution such that 90 percent of the cumulative distribution is below that point is 1.28. Assume as an approximation that the true difference is distributed normally with a standard deviation of 3.57. If the true difference is 11.6, there is a 90 percent chance that the observed difference will be greater than the 7.00 cutoff level because 11.6 - (1.28)(3.57) is approximately 7.0.

When the evaluation was designed, it was anticipated that data could be obtained relatively inexpensively from supplemental sites. Furthermore, it was believed that even if such sites were not as closely matched with the demonstration sites as were the comparison sites, they still could be very useful in supplying additional comparison information with which to evaluate demonstration impacts on participation. As a result, plans were made for the inclusion of 16 supplemental sites—two for each demonstration site—in the overall demonstration design. During initial negotiations with potential supplemental sites, however, it became evident that considerable administrative cost would be involved in obtaining their cooperation and that supplying the data would entail substantial cost for some of the sites. As a result, the number of supplemental sites was reduced to five.

Sample size decisions also were necessary for the project's case records and survey data collection work. These decisions also were based on tradeoffs between analytic precision and cost. The case records samples were initiated principally for descriptive analysis. Therefore, in determining these sample sizes, attention was given to the size of expected statistical confidence intervals around estimates of demonstration participant characteristics. The case records sample size chosen, 500 households per site, was sufficient to make reliable site estimates with an accuracy of plus-or-minus four percentage points in estimating proportions of households with given characteristics. [See Volume II, Appendix D.]

With regard to sample sizes for the survey work, design decisions focused on the analysis of program impacts on dietary intake because this was to be one of the key uses of the survey data and was also the type of analysis with the smallest expected sample size. For most of the nutrients examined in the analysis, the sample size which was chosen—approximately 1700 observations—was sufficient to allow a high probability of detecting program effects of 10 to 15 percent of mean nutrient intake.[1/]

SITE SELECTION

States and localities were invited, through a Federal Register announcement, to apply for selection into the demonstration. The final set of eight sites was selected judgmentally by FNS from among the 17 sites that applied. The following criteria were used in the site selection process:

1. High probability of successfully implementing the demonstration program within a relatively short time frame
2. Geographical distribution
3. Obtaining both rural and urban areas and a representative range of city sizes

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[1/] Based on power calculations analogous to those in previous footnote. The variances used in these calculations were those for the regression coefficients reported in Table VIII.8. Power levels of .90 for .05 level two-tailed tests were used.

4. Cost minimization, subject to the other criteria.

After the demonstration sites were selected, comparison sites were chosen using the following criteria:

1. Proximity to demonstration sites (to control for geographical differences. Also, where possible, choosing comparison and demonstration sites in the same state minimized differences in administrative environments.)

2. Similarity to demonstration sites with regard to rural or urban character (to control for possible cross-site differences with regard to this important variable).

3. Willingness to participate in the demonstration (it was not possible or desired to impose participation on states or localities).

Table II.2 lists the demonstration and comparison sites and includes notes with regard to the appropriateness of the comparison sites.

The criteria used to select supplemental sites were similar to those outlined above with regard to comparison site selection, although the supplemental sites were not as closely matched with the demonstration sites. Table II.3 lists the supplemental data sites.

TABLE II.2

DEMONSTRATION AND COMPARISON SITES

Demonstration Site	Largest City	Comparison Site	Notes on Comparison Site
Hennepin County, Minnesota	Minneapolis	St. Louis County, Minnesota	In same state as demonstration site. Includes Duluth, the third largest city in the state after Minneapolis and St. Paul. (St.Paul was not chosen as a comparison site because of concern that demonstration outreach efforts in Minneapolis could influence participation in St. Paul.)
Monroe County, New York	Rochester	Erie and Albany Counties, New York	In same state as demonstration site. Includes Buffalo and Albany, two of the other three largest upstate New York cities besides Rochester.
Cuyahoga County, Ohio	Cleveland	Franklin County, Ohio	In same state as demonstration site. Includes Columbus, the second largest city in Ohio after Cleveland.
Clackamas, Columbia, Multnomah and Washington Counties, Oregon	Portland	Lane County, Oregon	In same state as demonstration sites. Includes Eugene, the second largest city in Oregon after Portland.
Darlington, Dillon, Florence, and Marion Counties, South Caroline	Florence	Lee, Marlboro, and Orangeburg Counties, South Caroline	In same state as demonstration sites. Like demonstration sites, predominantly rural in character.
Utah (entire state)	Salt Lake City	Wyoming (entire state)	Contiguous to Utah and, like Utah, heavily rural.
Vermont (entire state)	Burlington	Essex and Clinton Counties, New York	Contiguous to Vermont and, like Vermont, heavily rural.
Arlington County, Virginia	Arlington	Alexandria City, Virginia	In same state as demonstration site. Like Arlington, a northern Virginia urban area near Washington, D.C.

TABLE II.3

SUPPLEMENTAL SITES

Demonstration Site	Supplemental Site	Notes on Supplemental Site
Hennepin County, Minnesota	Marion County, Indiana	Like demonstration site, located in Mid-west and contains major metropolitan area, Indianapolis
Cuyahoga County, Ohio	Hamilton County, Ohio	In same state as demonstration site and contains Cincinnati, the third largest city in the state
Oregon Demonstration Counties	Remainder of State, Oregon	In same state as demonstration site. Not well matched with regard to urban/ rural composition
South Carolina Demonstration Counties	Lancaster County, South Carolina	In same state as demonstration counties and, like them, pre-dominantly rural
Utah (entire state)	Tulsa, Oklahoma	Like demonstration site, located in Southwest. Provides a match for urban areas in demonstration site, but not for rural areas.

CHAPTER III: ADMINISTRATIVE COSTS AND PROCESSES

Interviews conducted with Food Stamp Program staff members indicated substantial positive reaction to cashout by both staff and clients. Very few start-up problems were reported in implementing the demonstration, and once the eligible recipients were identified and computer programming was modified to permit issuance of checks, the ongoing cashout issuance process was reported to be considerably simpler than ATP or coupon issuance. Potential cost savings from the cashout procedures were identified in all but one of the sites.

DATA COLLECTION

Administrative costs and processes were analyzed using data collected through interviews with site program staff involved in directing and/or implementing the cashout demonstration. Both in-person and telephone interviews were conducted with program staff in Hennepin County, Minnesota; Arlington County, Virginia; and Vermont. Interviews at the other five sites were conducted by telephone. An initial round of interviews was conducted between October and December of 1980. These discussions focused on aspects of project start-up and demonstration performance. A second round of interviewing occurred in August and September of 1981. At that time, emphasis was placed on refining estimates of cashout and non-cashout issuance costs and obtaining opinions on expanding and extending cashout.

In all sites except Vermont and Minnesota (the first two interviewed), an interview guide was used during the first round of interviews to help structure the discussions. This guide (included in Volume III) was mailed to cashout project coordinators prior to the interviews in order to help them prepare for the interviews and to determine which staff members should participate. For the August and September 1981 interviews, a letter and cost accounting form (see Volume III) were provided to help standardize cost estimation.

The initial interviews took approximately one and one-half to two hours to complete. In most sites, follow-up contacts were required to clarify data or to obtain additional information. Some sites provided additional written information. In South Carolina, where the Food Stamp Program is county-administered, the first set of interviews was conducted with each of the four demonstration county offices separately, followed by an interview with State Department of Social Services project staff. Cashout program applications and outreach plans prepared by the sites were reviewed prior to the interviews to provide background information that was verified through the later interviews.

The second set of interviews generally took 30-45 minutes. Follow-up calls were required in several sites to clarify information on cost estimates. The principal contact person at each site was sent a preliminary draft of the site report and asked to verify the accuracy of the information. Comments were incorporated into revised versions of the site reports and are reflected in this final report. Details of the findings of the site interviews are provided in Jackson (1982).

DEMONSTRATION CONTEXTS

The sites that participated in the demonstration had a variety of organizational arrangements. The entire states of Utah and Vermont participated in the demonstration and their programs were totally state operated. In Oregon and South Carolina, the state social services departments administered the demonstration, but only selected counties participated. The remaining demonstration programs (in Hennepin County, Minnesota; Cuyahoga County, Ohio; Monroe County, New York; and Arlington County, Virginia) were operated entirely by their respective county social services departments.

Four of the sites (Minnesota, Oregon, Vermont, and Virginia) participated in the outstationing component of the demonstration. This involved placing food stamp office staff in selected Social Security offices to take applications.

Table III.1 shows the organization of the demonstration sites and indicates their jurisdictional arrangement and their outstationing status (SSA or non-SSA).

Program size varied considerably—the smallest cashout caseload was in Arlington County, Virginia and the largest in Cuyahoga County, Ohio. Table III.2 displays the size of the cashout caseload in each site at approximately the start of the demonstration.

SUMMARY FINDINGS

Benefit Issuance

Sites vary considerably in their issuance procedures for non-cashout benefits. Utah and Vermont mail coupons directly to recipients and do not use Authorization to Participate (ATP) cards. All other sites mail ATP cards to recipients who must then take them to selected banks, post offices, or food stamp offices for redemption.[1/] Minnesota mails coupons directly to a subset of its caseload; the remainder receives ATP cards. At all sites, regular ongoing food stamp issuance activity is automated after the initial issuance.

Existing automated ATP issuance systems, coupon issuance systems or public assistance check-writing computer systems were modified to generate checks for the cashout program at each site. At all sites, mailing procedures, including check-signing, envelope stuffing, and labeling, are the same for cashout checks as for ATPs and/or public assistance checks.

Each Food Stamp Program office has procedures to issue food stamp benefits quickly for emergency initial issuances. In cashout sites, checks are used for these expedited issuances. In Ohio, Oregon, Minnesota, and New York, the expedited checks are generated and signed in the central office and either mailed to recipients or given to them directly at the main district office. At the other sites, expedited checks are issued at local offices. Site staff reported that the incidence of expedited checks for the cashout population is very small, less than 2-3 percent of all monthly issuances, because the elderly usually have other sources of income that can be used until food stamp benefits are issued through normal procedures.

[1/] Oregon changed to a direct mail procedure August 1, 1981. However, information provided in this report covers the time period prior to implementation of direct mail issuance.

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TABLE III.1

SITE ORGANIZATION AND PROGRAM TYPE

	State-Operated Sites		County-Operated Sites
	Entire State	Selected Counties	
SSA	Vermont	Oregon	Minnesota Virginia
Non-SSA	Utah	South Carolina	Ohio New York

TABLE III.2

DATE AND CASHOUT CASELOAD SIZE AT DEMONSTRATION START-UP

Site	Start-Up Date	Approximate Cashout Caseload Size at Program Start-up (Number of participating households)
Minnesota, Hennepin County	May 1980	3,007
New York, Monroe County	June 1980	3,795
Ohio, Cuyahoga County	May 1980	11,519
Oregon (four counties)	August 1980	5,590
South Carolina (four counties)	April 1980	3,322
Utah	April 1980	3,287
Vermont	July 1980	3,900
Virginia, Arlington County	September 1980	452

Benefit Issuance Costs

All sites except Minnesota were able to estimate the cost of issuing checks and the cost of non-cashout issuance.[1/] In all these sites, the cost of check issuance was reported to be lower than the cost of ATP or coupon issuance. While Minnesota staff members were not able to provide separate cost estimates for the two types of issuance, they did estimate that the actual cost per check issuance during the demonstration had been $.25 higher than the cost of coupon issuance. This higher unit issuance cost for cashout was attributed to the small scale of the demonstration, which led to certain inefficiencies, and it was felt that unit costs would be lower if cashout were applied to a large client population.

Table III.3 displays the estimated unit cost of ATP/coupon issuance versus check issuance in each site except Minnesota. Substantial differences exist across sites in the unit costs of ATP/coupon and check issuance. Some of these differences are due to the scale of the issuance operation. For example, Arlington County, Virginia had the highest unit cost per issuance and had, by far, the smallest caseload. Conversely, Cuyahoga County, Ohio had the largest caseload of the eight demonstration sites and also had the lowest unit cost of benefit issuance. The other relatively high cost issuance site was South Carolina, which is somewhat unique in that it is the only site that employs cashiers to redeem ATPs in food stamp offices.

The potential cost savings attributed to check issuance ranged from $ .32 to $1.20 per issuance. Sources of savings from using checks rather than ATPs or coupons for benefit issuance include: (1) reduced ATP transaction or redemption fees; (2) reduced labor costs associated with coupon handling in direct mail sites; (3) reduced security requirements; and (4) postage savings in direct issuance sites because checks are less costly to mail than the relatively heavier food coupon books. With regard to reduced security requirements, it should be noted that checks must also be handled in a secure fashion. However, because checks in general require less handling than do ATP's and coupons, the security costs associated with them are lower.

In some sites, actual savings during the demonstration were less than those suggested by the unit cost differences shown in the table because both cashout and non-cashout systems had to be maintained simultaneously. However, in sites with ATP issuance procedures, substantial savings were realized as a result of the demonstration, due to the elimination of ATP transaction fees which are $.75 or more per transaction in some sites. Also, in direct coupon issuance sites, significant postage savings were realized, and less staff were needed because checks, unlike coupons, do not have to be counted before issuance. To some

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[1/] The data presented here are based on information supplied by site staff during telephone interviews. Although the resources available for the evaluation did not permit independent verification of the reported data, the cost accounting form developed for the research, which sites used to summarize issuance costs, appears to have allowed the collection of consistent data across all sites. We therefore believe the reported data are reasonably comparable across sites and provide valid estimates of potential cost savings from cashout.

TABLE III.3

SITE STAFF ESTIMATES OF THE UNIT COSTS
OF BENEFIT ISSUANCE AND OF POTENTIAL SAVINGS FROM CASHOUT

Site	ATP/Coupon Issuance	Cashout Check Issuance	Potential Savings with Cashout	
			Dollars	Percentage[a]
Minnesota[b]	NA	NA	NA	NA
Ohio	$1.20	$ .26	$ .94	78%
Oregon	1.46	1.11	.35	24
New York	1.59	.57	1.02	64
South Caroline	2.31	1.95	.36	16
Utah	1.41	1.09	.32	23
Vermont	1.44	.94	.50	35
Virginia	3.50	2.30	1.20	34
AVERAGE - All Sites	1.84	1.17	.67	36

NA = not available.

[a] Not all the potential savings from cashout were realized during the demonstration because coupon-related procedures had to be retained for those segments of the caseload that were not cashed out.

[b] The Minnesota staff could not provide separate cost estimates for the two issuance procedures. Actual costs of cashout in Minnesota were believed to be 25 cents higher per cashout issuance than for regular issuance. However, this was attributed to the small scale of the cashout demonstration at that site and was not believed to be indicative of what cashout costs would be in a larger context.

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degree these issuance cost savings may have been offset by costs to cashout program participants in the form of check cashing fees. However, survey data collected during the evaluation suggest that only about three percent of these households had to pay fees in order to cash their checks.

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TABLE III.4

INITIAL PROJECT IMPLEMENTATION PROCEDURES

	Computer System Development		Identification of Project Eligibles	
	Adapted Food Stamp/ATP Issuance System	Adapted Public Assistance or AFDC System	Manual File Review	Computer File Scan
Minnesota	x		x	
Ohio		x	x	
Oregon	x			x
New York	x			x
South Carolina		x		x[a]
Utah		x		x
Vermont		x		x
Virginia		x	x	

[a] List of eligibles identified by state review of computer files was verified by county offices through manual case file review.

Another major task in implementing the demonstration was to identify households eligible for the demonstration and notify them of the pending changes. The identification of eligibles had to be performed manually in Minnesota, Virginia, South Carolina, and Ohio. Manual case file review was a time-consuming activity. For example, in Cuyahoga County, Ohio—the site with the largest caseload—identification of eligibles took approximately 428 worker-days. In sites where existing computer files could be used to generate lists of persons eligible for the project, this program start-up task was much simpler and less costly.[1/] All sites mailed notifications to the identified eligibles explaining the new issuance procedures.

Other start-up activities, such as staff training, were considered minimal. Although most sites did some training prior to start-up, this often consisted simply of discussing the change during a regular staff meeting. The minimal training required was attributed to the administrative simplicity of the program. Other activities required for project start-up, such as general administration and government liaison, were considered by most sites to be minimal, requiring little additional effort once the program was approved.

All sites were able to provide some estimate of the overall costs of starting up the cashout project. However, most sites were unable to estimate costs for detailed subtasks. Table III.5 shows total cost estimates for cashout start-up in each site and includes an allocation of those costs across subtasks, where available. Many sites reported that their estimates for overall and subtask cost estimates were subject to considerable margins of error.

Table III.6 lists the major activities that were required in starting up the cashout program. It also summarizes a number of factors that should be considered in planning or implementing future cashout procedures.

Outreach

In accordance with the demonstration design plan, outreach activities were not changed substantially with implementation of the demonstration. Existing outreach activities simply were modified to include information about cashout. However, several sites, most notably Monroe County, New York; Cuyahoga County, Ohio; and Arlington County, Virginia did target some information about the program to groups that included large numbers of elderly persons.

Problems

All the sites reported that the demonstration was relatively easy to implement. Despite some minor initial problems at various sites—a workers' strike in Ohio, a delay in receiving check stock in New York, and early opposition to the program from an advocacy group in Virginia—project staff consistently stated that implementation of the demonstration was relatively simple.

[1/] A factor that would have to be considered in planning a full-scale SSI cashout program would be whether households receiving only state SSI supplements would be eligible to participate. Such households were included in at least some of the current demonstration sites. If it were desired to limit the program to only recipients of federal SSI payments, this could potentially increase the cost of identifying eligible households. More than 10 percent of all recipients of federally-administered SSI payments receive only state supplementation. [Social Security Bulletin, Annual Statistical Supplement, 1980, Table 152.]

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TABLE III.5

CASHOUT START-UP COSTS

Site	Total $	Computer Adaptations	Identification of Eligibles	Staff Training	General Administration, Government Liaison, or Other Unspecified Costs
Minnesota	NA	10,000	1,889	1,721	NA
Ohio	72,212	34,091	27,743	906	9,472
Oregon	38,200		30,000[b]	700	5,500
New York	51,254[a]				
South Carolina	90,000 [a]				
Utah	27,709		4,250[b]	9,617	13,842
Vermont	26,009[a]				
Virginia	11,748	500	1,562	286	9,400
AVERAGE - All Sites	45,018				

NA = not available.

[a] Detailed cost breakdowns were not possible.

[b] These estimates are for the computer adaptation and eligible household identification tasks combined; it was not possible in these cases to make more detailed estimates.

TABLE III.6

CASHOUT IMPLEMENTATION CHECKLIST

Start-Up Activities and Tasks	Factors to Consider for Future Implementation
1. Plan and arrange for adaptation or development of an automated system to issue checks for cashout.	1. Public Assistance, General Relief, or ATP issuance software systems have been successfully modified for use in cashout check issuance.
2. Develop and implement procedures for initial and ongoing identification of eligibles.	2. Computerized selection of age and program eligibility criteria may be preferable to manual case reviews but may not be feasible if detailed data are required. Computerized selection appears to be much less costly.
3. Develop procedures for check-signing and mailing of cashout checks.	3. State or county auditor or treasurer's office may have to be contacted to determine appropriate check stock and signing regulations.
4. Inform recipients of change to new system.	4. Several months of advance written notice to participants can help minimize changeover confusion.
5. Inform area banks of new issuance procedures, and probable dates of major mailings.	5. Identification of authorized representatives for protected payees may prove helpful.
6. Develop procedures for issuing expedited and replacement checks.	6. Special plans might be made to expedite issuing stop-payment orders. States that do not permit counties to issue checks against state programs may have to make special arrangements for expedited benefit issuance.
7. Conduct public relations campaign to ensure that elderly know about new payment plans.	
8. Develop procedures for check reconciliation.	
9. Train staff on changeover to new procedures and cashout program guidelines.	

A few common problems occurred. Some banks were initially reluctant to cash the new checks because they were different from the usual state or county welfare department checks. This was easily resolved after the banks were officially assured that the checks were valid. Some banks were reluctant to cash checks for payees who were unable to sign them.[1/] Prior arrangements with banks to cash checks signed by authorized representatives would have eliminated this problem in most cases. Some sites solved the problem by making out checks directly to authorized representatives. Consistent guidelines on this issue would have been helpful.

CONCLUSIONS

Overall, cashout was believed by all of the program staff members who were interviewed to have been implemented successfully. Cashout procedures were found to be easy to implement and were generally thought to be less expensive than traditional issuance procedures. Relatively few problems related to cashout were encountered during the demonstration. Outstationing was also found to be relatively easy to implement. However, the low volume of program applications at Social Security offices resulted in very low worker productivity under this procedure.

[1/] This is not a problem with ATPs because two names can be placed on an ATP card. In most sites, cashout checks are made out to only one person.

CHAPTER IV: CHARACTERISTICS OF DEMONSTRATION PROGRAM PARTICIPANTS

Case records data from each of the eight demonstration sites as of approximately ten months after the start of the demonstration have been tabulated to obtain descriptive information about the households that participated in the demonstration program.[1] Table IV.1 presents data on key client characteristics for each of the three major target groups of the demonstration: SSI aged; non-SSI aged; and SSI blind and disabled.[2]

The SSI aged and the non-SSI aged categories are similar with regard to the distribution of the age of the head of the household. For both groups, the average age is approximately 75 years, and the greatest concentration of households is in the 70 to 74 years of age group. However, there are considerable numbers of households in both younger and older age categories.[3] The SSI blind and disabled category is, of course, considerably younger, with an average age of approximately 50 years. Approximately 27 percent of the households in this category are headed by a person less than 45 years old; most of the others are in categories between 45 and 64 years of age.

The majority of the households in all three categories are headed by females. There is, however, some variation in this percentage. The SSI blind and disabled category had the lowest percentage of female heads, 67 percent. The corresponding percentages for the SSI aged and non-SSI aged groups were 78 and 72 percent, respectively.

A very substantial proportion of all participant households consisted of only one person, with the percentage ranging from 94 percent among the SSI aged

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[1] See Volume II, Appendix D for a complete description of the case records sample on which this chapter is based.

[2] The non-SSI aged category includes members of households entirely composed of people 65 years old or older, none of whom were receiving SSI. The SSI-aged category includes members of households composed entirely of people 65 and older, at least one of whom received SSI income. Persons in households with some members who were under 65 and received SSI income comprise the third category.

[3] All tabulations are weighted so that the data are representative of the entire population of households that participated in the demonstration. The weighting factors are described in Volume II, Appendix D.

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TABLE IV.1

PARTICIPANT HOUSEHOLD CHARACTERISTICS,
BY TARGET GROUP

Characteristic	SSI Aged	Non-SSI Aged	SSI Blind & Disabled	Total [a]
Age of Head of Household				
Less than 45	—%	—%	27%	10%
45 - 54	—	—	23	9
55 - 64	—	—	41	16
65 - 69	25	25	5	18
70 - 74	28	28	1	18
75 - 79	21	21	1	14
More than 79	25	26	2	16
AVERAGE	74.7	75.0	49.9	66.3
Sex of Head of Household				
Male	22	28	33	28
Female	78	72	67	72
Persons in Household				
One	94	87	93	90
Two more than two	6	13	7	10
Race				
Black	18	17	27	25
White	72	80	66	69
Other	10	3	7	5
Gross Monthly Income [b]				
Less than $200	6	4	6	6
$201 - $250	24	11	58	32
$251 - $300	62	30	26	39
$301 - $350	2	27	3	10
$351 - $400	4	17	4	9
More than $400	2	10	3	5
AVERAGE	269.68	312.11	261.76	281.26
Gross Income Divided by Poverty Standard [b]				
0 - 25%	1	1	—	—
26 - 50%	5	3	6	5
51 - 75%	70	26	75	60
76 - 100%	23	54	17	30
101 - 130%	1	15	1	5
> 130	—	1	—	—
AVERAGE	0.73	0.81	0.71	0.75

Table IV.1 [Continued]

Characteristic	SSI Aged	Non-SSI Aged	SSI Blind & Disabled	Total
Net Monthly Income After Food Stamp Program Deductions				
$0 - $50	31	19	38	29
$51 - $100	15	13	15	15
$101 - $150	12	17	13	16
$151 - $200	35	22	26	26
$201 - $300	6	24	5	12
More than $300	1	5	3	3
AVERAGE	89.38	130.58	77.80	122.62
Food Stamp Benefit Amount				
$10 or less	13	27	8	14
$11 - $30	31	26	28	28
$31 - $50	16	21	18	21
$51 - $70	39	24	44	35
More than $70	1	2	2	2
AVERAGE	40.02	36.82	43.89	39.84
Sample Size	4,428	3,973	4,929	16,255

NOTES: — means less than 0.5.

a/ Total column includes cases which could not be classified into target group categories because of missing data.

b/ Food Stamp Program benefits are not included in gross income.

to 87 percent for the non-SSI aged. Almost all of the remaining households contained two persons, with less than half of 1 percent of all households having more than two persons.

In each category, the target group was predominantly white, with the exact percentages ranging from 66 percent for the SSI blind and disabled category to 80 percent for the non-SSI aged. Most of the other program participants were black, although 10 percent of the SSI aged category had other racial backgrounds. [Native Americans in the Utah site and Asian Americans in the Virginia site, which is near Washington, D.C., made up much of this group.]

The SSI blind and disabled category had the lowest average income distribution, with an average gross monthly income of $261.76. The highest of the three income distributions was for the non-SSI aged, which had an average income of $312.11 and was the only category with substantial numbers of households having incomes in excess of $300. This was expected because presumably the reason many of these households are not in the SSI-aged category is that their incomes are in excess of the SSI eligibility limits which, in general, are lower than those for the Food Stamp Program. 1/ 2/

For both SSI categories, approximately three-quarters of the households in the sample had gross incomes that were 75 percent or less of official poverty levels, and only 1 percent of households in these categories had incomes in excess of the poverty standards. Within the non-SSI aged category, the majority of the sample had incomes between 76 and 100 percent of the poverty level, and 16 percent had incomes above the poverty cutoff level.

Similar distributions can be observed for net monthly income after Food Stamp Program deductions are subtracted, with the non-SSI aged again having higher incomes, on average, than persons in the other two categories. The distributions of food stamp benefit amounts also reflect these income patterns, with the non-SSI aged category having a somewhat lower benefit amount distribution. Average benefit amounts ranged from approximately $37 to $44 per month.

1/ Some persons eligible for SSI are not eligible for food stamps because of program differences in the definition of a recipiency unit. Individuals or couples may be eligible for SSI but ineligible for food stamps because they live in households with other people whose incomes or assets are in excess of the Food Stamp Program limits.

2/ It is not necessarily the case that all households in the non-SSI aged category are ineligible for SSI. The available evidence on participation rates in the SSI program among the elderly suggests that only approximately 60 percent of elderly persons eligible for SSI actually participate in that program. [See Worthington et al., 1981.] Thus, there are substantial numbers of persons eligible for SSI who do not participate, and it is possible that some of them receive food stamps and are in the current sample. However, many elderly persons who apply for food stamps and are eligible for SSI may be referred to the SSI program by Food Stamp Program staff. Thus, it is reasonable to believe that most households in the non-SSI aged category in the current sample are probably not eligible for SSI.

Table IV.2 presents data similar to those of Table IV.1, tabulated separately for each of the eight sites. With regard to age and sex of the head of the household and to household size, the patterns for each of the sites are, in general, similar to those discussed earlier. Considerably greater variation can be observed with regard to the race variable, however, with the percentage of the demonstration households which are white ranging from 99 percent in Vermont to 38 percent at the South Carolina site.

The income variables also display considerable variation by site. Because gross income is not available for three of the sites, this can perhaps best be seen in the statistics on net income. As shown in the table, average net monthly incomes range from a low of $80.98 in Oregon to a high of $160.42 in Utah.

Distributions of households by target groups for each of the sites are also shown in Table IV.2. In general, these tabulations show a roughly equal split of households among the three target categories.

TABLE IV.2

PARTICIPANT HOUSEHOLD CHARACTERISTICS
BY SITE

Characteristic	UT	SC	OR	MN	NY	VT	OH	VA	Total
Age of Head of Household									
less than 45	8	NA	13	NA	14	7	10	10	10
45 - 54	6	NA	6	NA	11	5	12	5	9
55 - 64	13	NA	16	NA	21	11	17	15	16
65 - 69	17	NA	18	NA	16	18	17	18	18
70 - 74	22	NA	19	NA	15	22	17	23	18
75 - 79	20	NA	16	NA	13	21	16	17	14
More than 79	14	NA	12	NA	10	16	11	12	16
AVERAGE	68.81	NA	65.4	NA	63.0	69.7	65.9	68.3	66.3
Sex of Head of Household									
Male	29	NA	32	28	29	28	21	22	28
Female	71	NA	68	72	71	72	79	78	72
Persons in Household									
One	89	80	89	95	94	88	94	92	90
More than one	11	20	11	5	6	12	6	8	10
Race									
Black	1	62	11	10	32	—	55	29	25
White	87	38	84	85	65	99	41	54	69
Other	12	—	5	5	3	1	4	17	5
Gross Monthly Income [a/]									
Less than $200	3	6	5	NA	NA	2	8	NA	6
$201 - $250	30	34	31	NA	NA	4	42	NA	32
$251 - $300	44	37	40	NA	NA	58	32	NA	39
$301 - $350	8	6	10	NA	NA	16	9	NA	10
$351 - $400	10	12	9	NA	NA	10	6	NA	9
More than $400	5	5	5	NA	NA	12	3	NA	5
AVERAGE	283.43	272.04	280.22	NA	NA	323.12	269.89	NA	281.26
Ratio of Gross Income to Poverty Level [a/]									
0 - 25%	1	—	—	NA	NA	—	—	NA	—
26 - 50%	2	4	3	NA	NA	1	7	NA	5
51 - 75%	66	75	66	NA	NA	8	68	NA	60
76 - 100%	28	19	24	NA	NA	78	20	NA	30
101 - 130%	5	2	6	NA	NA	12	4	NA	5
> 130	—	—	—			1	—		—
AVERAGE	0.76	0.70	0.75	NA	NA	0.86	0.73	NA	0.74

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Table IV.2 (Continued)

Characteristic	UT	SC	OR	MN	NY	VT	OH	VA	Total
Net Monthly Income After Food Stamp Program Deductions									
$0 - $50	10	13	48	13	21	53	28	22	29
$51 - $100	13	23	15	12	10	6	18	21	15
$101 - $150	18	32	10	17	14	7	16	18	16
$151 - $200	35	11	19	38	50	11	27	21	26
$201 - $300	16	16	7	18	2	20	10	16	12
More than $300	8	5	1	2	3	3	2	2	3
AVERAGE	160.42	139.06	80.88	150.27	139.2 2	92.18	124.28	120.73	122.62
Food Stamp Benefit Amount									
$10 or less	33	3	5	18	36	17	8	14	14
$11 - $30	38	26	22	44	21	12	33	25	28
$31 - $50	18	46	16	21	17	11	20	31	21
$51 - $70	11	23	55	16	25	56	38	26	35
More than $70	—	2	2	1	1	4	1	4	2
AVERAGE	24.00	40.74	48.80	30.01	31.45	50.24	41.83	40.27	39.84
Target Group									
SSI Aged	34	NA	35	29	38	39	32	37	35
Non-SSI Aged	32	NA	30	33	14	37	28	37	30
SSI Blind and Disabled	34	NA	35	38	50	24	40	28	35
Sample Size	580	3658	5826	567	4128	549	500	477	16255

NOTES: NA = not available.

— means less than 0.5.

a/ Food Stamp Program benefits are not included in gross income.

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CHAPTER V: EFFECTS ON NUMBER OF TARGET HOUSEHOLD PARTICIPANTS

Analysis of monthly aggregate data suggests that the cashout demonstration had, at most, a modest effect on participation. During the period covered by the analysis, the number of participants among households eligible for cashout increased at the demonstration sites by an average of 9.5 percent. Over the same period, participation increased at comparison sites by 7.0 percent. The difference in the two rates of increase is not statistically significant.

When disaggregated data are examined, however, there is evidence that the demonstration program may have had some effect on participation for one of the three population target groups—the non-SSI aged category. Participation within this category increased by 13.2 percent at the demonstration sites during the study period. The comparable change at comparison sites was 4.6 percent, and the difference between the changes at the demonstration and comparison sites is statistically significant. Differences for the other two target groups are much smaller.

This chapter presents details of the research on which the above conclusions are based. First the data that were used are discussed, and then the results of the analysis are presented.

MONTHLY PARTICIPATION DATA

All the sites that participated in the demonstration project—demonstration sites, comparison sites, and supplemental data sites—were required to submit monthly reports to FNS. These reports disaggregated the number of food stamp households eligible for cashout into three groups: non-SSI aged, SSI-aged, and SSI blind and disabled.[1/]

Before examining results based on these data, some important limitations on the data set should be noted. First, the data are incomplete because not all sites submitted data for all months during the demonstration period. To the extent possible, data that cover the first twelve months of the demonstration period at each site were used in the analysis. However, only data for shorter periods were available for some sites and these were used, when necessary.

Perhaps more important is that some of the data may be inaccurate. It was impossible for MPR independently to verify the accuracy of the data.

[1/] The non-SSI aged category includes members of households entirely composed of people 65 years old or older, none of whom were receiving SSI. The SSI-aged category includes members of households composed entirely of people 65 and older, at least one of whom received SSI income. Persons in households with some members who were under 65 and received SSI income comprise the third category.

Some sites may have inadvertently supplied incorrect data. In particular, as discussed in Volume II, Appendix G, there are a number of instances where the data reported by the sites appear to be internally inconsistent and/or where the reported numbers suggest extremely unlikely caseload fluctuations. As described more fully in that appendix, data have been adjusted or eliminated from the analysis whenever they clearly appeared to be erroneous. However, less obvious errors may still remain.

To a substantial degree, errors in individual site reports may offset one another when averaged across sites. Overall, therefore, despite the limitations noted above, the patterns that emerged from analysis of these data are in all likelihood indicative of the effects of cashout on participation.

OVERALL CHANGES IN PARTICIPATION

Table V.1 shows the changes in household participation that occurred during the analysis period at each of the demonstration sites. The number of households participating in the Food Stamp SSI/Elderly Cashout Demonstration increased at each of the eight sites. However, the percentage changes varied substantially among sites, from a high of 17.1 percent at the Minnesota site, to a low of 2.3 percent in Oregon.

There was also considerable variation in participation changes among the three target groups. Although the relative patterns of changes among the three categories varied from site to site, there was some tendency for the changes to be lowest in the SSI-aged category which had the smallest average change. [1/]

Because Food Stamp Program caseloads in general were rising during the evaluation period, it would be incorrect to attribute all of the observed changes in participation to the demonstration. [2/] It is therefore of interest to compare average changes at the demonstration sites with those observed at comparison and supplemental sites. Data on average participation changes at the demonstration, comparison, and supplemental data sites are presented in Table V.2. Entries in the table are average percentage changes.

The average change in overall participation at the demonstration sites was 9.5 percent. The reported changes for the comparison and supplemental sites, respectively, were 7.0 percent and -1.6 percent. As shown in the last two columns of the table, if the demonstration sites are compared only with the comparison sites, the estimated net effect of the demonstration is a 2.5 percent

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1/ The relatively smaller rise in program participation of the SSI aged group compared with the SSI blind and disabled group is consistent with national data which show that the size of the federally-administered SSI aged caseload decreased by approximately 3 percent during the period May 1980 through April 1981, while the SSI blind and disabled caseload rose by 1.4 percent. [Social Security Bulletin, September 1980 and August 1981]. It should be noted in this regard that during the period, no major changes were made in eligibility standards for either the Food Stamp Program or the SSI program, except adjustments for inflation.

2/ The overall national caseload increased by approximately 9 percent from 7.7 million households in May 1980 to 8.4 million households in April 1981.

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TABLE V.1

PERCENTAGE CHANGES IN PARTICIPATION
AT DEMONSTRATION SITES

Site	Non-SSI Aged	SSI Aged	SSI Blind and Disabled	Total
Vermont	20.9%	11.9%	9.0%	14.0%
Minnesota	8.3	17.7	25.8	17.1
Virginia	10.6	19.9	8.3	13.3
Oregon	2.9	-2.5	6.0	2.3
New York	17.2	2.9	3.7	5.3
South Carolina	24.1	7.4	14.8	12.6
Ohio	5.1	-4.4	12.1	4.8
Utah	16.6	-3.8	10.2	7.0
AVERAGE	13.2	6.1	11.2	9.5

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TABLE V.2

AVERAGE PERCENTAGE CHANGES IN PARTICIPATION
AT DEMONSTRATION SITES COMPARED WITH COMPARISON SITES

					Differences	
	Demonstration Sites	Comparison Sites	Supplemental Sites	Supplemental & Comparison Combined	Demonstration vs. Comparison Sites	Demonstration vs. Comparison and Supplemental Combined
Overall Changes	9.5%	7.0%	-1.6%	3.8%	2.5% [0.7]	5.7% [1.6]
By Participant Category						
Non-SSI Aged	13.2	4.6	-5.0	1.5	8.6* [2.3]	11.7* [3.3]
SSI Aged	6.1	5.9	-2.1	1.5	0.2 [0.03]	4.7 [1.1]
SSI Blind and Disabled	11.2	14.2	3.5	11.2	-3.0 [0.4]	0.05 [.01]
SAMPLE SIZE	8	8	5	8	8	8

NOTES: Absolute values of t statistics are shown in parentheses. t values are based on variances across the eight sets of sites.

Asterisks indicate entries are statistically significantly different from zero using a .05 level two-tailed test.

Entries are based on averages of table entries as shown in Volume II, Appendix Tables G.4 through G.7.

For demonstration sites with no supplemental data site, the comparison site data were used in computing the "supplemental and comparison site combined" columns.

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CHAPTER VI: ESTIMATED FOOD STAMP PROGRAM PARTICIPATION RATES

In assessing the results reported in the previous chapter, it is important to consider participation rates in the program among eligible target population households. Given the relatively modest effects of the demonstration on aggregate levels of participation, a key question in this regard is whether there were many eligible households who might have joined the program during the demonstration but did not do so.

To answer this question, this chapter draws on survey data collected from elderly households at three pairs of demonstration/comparison sites. The overall conclusion from the analysis is that there are very substantial numbers of eligible nonparticipants at these sites. Participation rates among eligible elderly households approximately nine months after the start of the demonstration are estimated to range among the sites from 28 percent to 60 percent.

The survey on which the analysis is based and the estimated eligibility rates are discussed below.

DESCRIPTION OF SURVEY

The survey conducted for the evaluation was designed to obtain data from program participants and eligible nonparticipants with which to examine several different evaluation issues including: (1) program participation rates; (2) reasons for nonparticipation; (3) program effects on food expenditures and dietary intake; and (4) household attitudes toward cashout. (Results with regard to the first of these questions are discussed below. Findings regarding the other questions are presented in subsequent chapters.)

Because no sample frame of eligible nonparticipants was available for the survey, it was necessary to obtain a sample of all elderly households at the survey sites and then screen out those households with incomes and/or assets in excess of the Food Stamp Program eligibility limits. Performing this work efficiently within the constraints of the available resources required a complex survey design, that included both a stratified sample and a mixed-mode data collection approach. This approach included mail, telephone, and in-person survey methods.

This section presents an overview of the survey and discusses a number of limitations that must be kept in mind when interpreting the survey data. A full description of the operational aspects of the survey, including data collection instruments, is presented in Volume III of this report.

Overview of Survey

The survey was conducted during June through October 1981 at the New York, South Carolina, and Oregon demonstration sites and at their paired comparison sites.[1/] The demonstration had thus been in operation for at least nine months at each site by the time of the survey.

[1/] Only parts of the South Carolina and Oregon sites were included in the survey.

Respondents were drawn from two sample frames: [1] persons 65 years old or older who were on the Social Security Administration Master Beneficiary Record [MBR] file, which includes all persons who have Social Security numbers and/or receive Medicare or Social Security benefits;[1] and [2] persons 65 years old or older who were on the Social Security Administration Supplemental Security Record [SSR] file, which includes data on persons receiving Supplemental Security Income [SSI] benefits.[2]

Because the relevant sampling unit for much of the analysis was the household rather than the individual, attempts were made within each sample to identify instances where more than one member of the same household had been drawn into the sample. When such cases were identified, only one household member was retained in the sample. In addition, persons in the SSR sample were eliminated from the MBR sample.

Samples were drawn from each of the two sample frames. Although the samples were random, probabilities of selection varied across households because of the following three factors: [1] households with more than one member 65 years old or older had higher probabilities of selection than did households with only one such member, because the MBR frame lists persons rather than households;[3] [2] persons receiving SSI were oversampled because it was anticipated that the SSR sample frame would be an efficient one from which to identify Food Stamp Program eligible persons; and [3] sample members with locatable telephone numbers were oversampled in order to keep survey costs within acceptable bounds.

Because of resource limitations, only the two elderly target group categories for the cashout demonstration were included in the survey. The SSI blind and disabled category was not included, and households that included members under 65 years old were therefore screened out of the sample during the survey work.

In order to control interviewing costs, sample members from the MBR file were mailed a short screening questionnaire to obtain data with which to make an approximate determination of Food Stamp Program eligibility. Only households clearly ineligible for food stamps were eliminated from the survey at this point.[4] Households that passed this rough screening test and a subsample of those that did not respond to the mail survey were contacted by MPR interviewers

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[1] It is estimated that this file contains the names of more than 95 percent of all Americans over 64 years old [Worthington et al. 1981].

[2] Appendix A describes the sampling in detail, including the weighting factors that were used to tabulate the survey data in order to correct for unequal probabilities of selection.

[3] Even though, as described in the text, only one member of any given household was retained in the sample, the fact that a household had multiple members in the sample frame still increased its probability of selection. This is discussed in Volume II, Appendix A.

[4] Single-person households were eliminated if they had gross monthly incomes in excess of $1,000 and/or assets in excess of $4,000. The comparable limits for two-person households were $1,250 and $4,000.

and questioned about household composition, household income, and experiences with and attitudes toward the Food Stamp Program. Interviews were conducted by phone, where possible.[1] However, in-person interviews were conducted with respondents who did not have listed phone numbers.

Eligibility for the Food Stamp Program was estimated on the basis of household composition data, data on assets, and data on income and expenses which can be deducted in computing net income for program purposes. In order to maximize the accuracy of the interview data by focusing on income actually received, the income questions centered principally on income in the month prior to the survey. However, for income categories in which income was received in the previous month, respondents were also asked about expected income in the coming month. To take account of the prospective nature of the definition of income used in the Food Stamp Program, the household eligibility calculations for the analysis used the data on previous month's income, modified by any expected changes in the coming month.[2/3]

Important Survey Data Limitations

All household survey data are subject to error, and this may be particularly true of data collected from elderly respondents, many of whom may have particular difficulty responding to financial questions. It is important, therefore, that the potential limitations of the data be considered when interpreting the results of the survey.

One potentially serious type of error in the data is underreporting of income. It is well known that income tends to be significantly underreported in household surveys. This could create particular problems for the current analysis, because it is possible that, because of underreporting of income, some ineligible households have been classified as eligible on the basis of the survey data. This, in turn, could bias estimated participation rates downward because any ineligible households that have been incorrectly classified as

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[1] As described in Volume III, a large pretest was conducted prior to the main survey to determine whether telephone interviewing would be feasible, given the age of the respondent population. It was found during the pretest that, in general, it was possible to conduct the interview over the phone. However, as described in Volume III, the pretest experience resulted in the adoption of a number of special survey procedures, such as the use of telephone sound amplification devices, to ensure the success of the interviewing.

[2] This procedure is an approximation of the actual food stamp regulations, which in principle require the use of all information on income through the entire certification period. Limitations on survey length made it impossible to fully replicate the information required by the regulations. In view of the relatively stable incomes of the elderly persons who were surveyed, however, it is reasonable to believe that the procedures used resulted in a good approximation of the prospective income concept in the regulations. The exact methods used to calculate household income from the survey data are described in Volume II, Appendix F.

[3] For a subsample of respondents, the survey also collected data on income in the previous year in order to conduct a methodological study of methods that are currently used to make national estimates of Food Stamp Program eligibility and participation rates [see Chapter X].

eligible are not, of course, program participants and thus are counted as eligible nonparticipants in the participation rate tabulations.

Evidence with regard to possible income misreporting in the survey data is examined in Volume II, Appendix K, where matched survey and case records data are compared for a sample of the food stamp participants. As discussed in that appendix, there is considerable variation in individual cases between income reported in the survey and income as reported in case records, and there is evidence that average incomes may be somewhat underreported in the survey data. However, in part because underreporting is partially offset by overreporting, the average net amount of underreporting as compared with case records data appears to be relatively small, with the discrepancy in gross monthly income being less than $13.

This does not, of course, prove that, on average, there was no underreporting in the survey. It is quite possible that there was underreporting in both data sources. Nevertheless, the results of the matched analysis do suggest that, on average, the income levels found in the survey are similar to those that would be obtained during Food Stamp Program eligibility interviews. Thus, it is reasonable to believe that the estimated participation rates presented in this chapter are similar to those that would have been obtained if the eligibility calculations had actually been made during client interviews with program staff.

Another potential difficulty with the data, which could effect the participation analysis, is underreporting of Food Stamp Program participation. Evidence from analysis of the 1979 panel data collected for the Income Survey Development Program (ISDP) suggests that household survey respondents have a tendency to underreport participation in the program (see Czajka, 1981). This is a potential problem for the current analysis because it could clearly lead to underestimates of participation rates. In order to minimize this problem, the names of all households classified in the survey as eligible nonparticipants were compared with program case records listings. Apparent matches were found for approximately 6 percent of these cases. These cases were recoded in the survey data as participants. It is likely that some additional underreporting of participation remains, particularly for multi-person households where the person whose name is in the Food Stamp Program case records may be different from the sample member. However, the amount of the remaining underreporting is probably quite small, given the low incidence of multi-person households in the sample.

A third limitation which should be kept in mind when interpreting the survey data concerns the response rates for the survey. The overall response rate for the phone/in-person survey was approximately 65 percent, and item nonresponse on key income and assets questions further reduced the sample sizes available for specific aspects of the analysis. Furthermore, as discussed in the nonresponse analysis presented in Volume II, Appendix B, there is evidence that the survey respondents differed somewhat from nonrespondents. The MBR sample respondents were about half a year younger and their monthly Social Security benefits were about $19 (about 6 percent of average benefits) lower than those of MBR nonrespondents. The SSR sample respondents were one year younger and their monthly SSI payments were $2 lower (approximately 2 percent of average payments) than those of SSR nonrespondents.

Because of the large sample sizes involved, the differences for the MBR sample and that for age in the SSR sample are statistically significant. However, they are quite small in absolute value. The analysis of factors associated with program participation presented later in this report (see Chapter VII) suggests that program participation rates are inversely related to both income and age. Thus, the higher MBR response rates for households which have lower incomes and are younger may tend to bias estimated participation rates upward somewhat. However, given the relatively small sizes of the differences between respondents and nonrespondents, it is likely that this bias, if it exists at all, is relatively small.

Finally, it should be recognized that, as with all survey data bases, many editing decisions have been required in preparing the data for analysis. Edit range checks, for instance, were imposed on key variables such as the household expenses that can be deducted in computing Food Stamp Program net income. Items with values that exceeded specified upper bounds were treated as missing. Similarly, sample frame and/or case records data were used to check certain key data items, and data were recoded when inconsistencies suggested that doing so was appropriate. Certain obvious interviewer recording errors were also corrected. In addition, respondents were dropped from specific components of the analysis if data on key variables were missing. Editing decisions are described in detail in Volume II, Appendix F. To our knowledge, none of them has substantially affected the results of the analysis.

In summary, the survey data are subject to several limitations that must be kept in mind when interpreting the data. As discussed above, however, it is reasonable to believe that, despite these potential problems, the results of the survey provide reasonably accurate information about the research questions being addressed.

PROGRAM PARTICIPATION RATES

Participation rates that have been estimated using survey data are reported below, followed by a discussion of differences in estimated rates between demonstration sites and their corresponding comparison sites. Finally, a number of conclusions from the analysis are summarized.

Participation Rate Estimates

Table VI.1 summarizes estimated participation rates among eligible elderly households at the six survey sites. Because participation rates were found to be very different depending on whether respondents received SSI income, separate rates are reported for SSI recipients and for households not receiving SSI.

As shown in the first row of the table, Food Stamp Program participation rates among eligible households who receive SSI range between .64 to .84, with all but one of the rates being above .70. Participation among non-SSI households is estimated to be much lower, with estimated rates ranging from .17 to .37 (Row 2).

Overall participation rates aggregated across the SSI and non-SSI household categories are displayed in Row 9 of the table. Essentially, these are weighted averages of the rates for the two groups, with the weights depending on the numbers of eligible households in each group. The estimated overall participation rates range from a low of .28 at the New York comparison site to a high of .60 at the South Carolina comparison site.

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TABLE VI.1

PARTICIPATION RATE ESTIMATES
(Standard Errors are in Parentheses)

	New York Demonstration Site (Monroe County, including Rochester)	New York Comparison Site (Albany County)	South Carolina Demonstration Site (2 rural counties)	South Carolina Comparison Site (2 rural counties)	Oregon Demonstration Site (Multnomah County, including Portland)	Oregon Comparison Site (Lane County, including Eugene)
1. Participation rate for SSI recipients	.84 (.05)	.84 (.05)	.78 (.04)	.82 (.04)	.75 (.05)	.72 (.05)
2. Participation rate for non-SSI households	.35 (.08)	.17 (.06)	.37 (.04)	.36 (.05)	.33 (.06)	.27 (.04)
3. Number of food stamp participating households among SSI recipients	1,493	522	704	591	1,298	860
4. Number of food stamp participating households among non-SSI households	634	446	306	239	1,532	864
5. Total Food Stamp Program participants	2,127	968	1,010	830	2,830	1,824
6. Number of food stamp eligible households among SSI recipients	1,777	816	903	721	1,731	1,333
7. Number of food stamp eligible households among non-SSI households	1,811	2,624	827	664	4,642	3,200
8. Total food stamp eligible households	3,588	3,440	1,730	1,385	6,373	4,533
9. Overall participation rate	.59 (.07)	.28 (.07)	.58 (.04)	.60 (.04)	.44 (.06)	.40 (.05)

See notes in Volume II, Appendix H for derivation of table entries.

The variation among sites in the overall rates reflects both differences in the participation rates within the SSI and non-SSI categories and also differences in the proportions of all eligible households between the SSI and non-SSI categories. In general, the sites with the highest overall participation rates, the New York demonstration site and the two South Carolina sites, tend to have relatively high participation rates within each category and also tend to have relatively high proportions of eligible households within the SSI category.

Current national estimates of the Food Stamp Program participation rate for the elderly place it at approximately 50 percent. Because it is very likely that there is considerable variation in rates by locality underlying the average national rate, the eligibility estimates presented in Table VI.1 appear, for the most part, to be consistent with the national estimates. However, two aspects of the current estimates warrant further discussion: the estimated differences between the SSI and non-SSI groups; and the relatively very low rate observed for the New York comparison site.

There are a number of possible reasons for the lower estimated Food Stamp Program participation rates for non-SSI households as compared with SSI recipients. One is that income and assets limits generally are lower for the SSI program than for the Food Stamp Program.[1/] As a result, the households in the SSI category have lower average gross incomes ($312 as compared with $356).[2/] This means that they are likely to be more in need of food stamp assistance, which could be expected to result in higher participation rates. The probit results presented later in this chapter imply that participation rates are substantially higher for households with relatively lower incomes.

Another possible reason for the high Food Stamp Program participation rate among SSI recipients may be referrals between programs. It is possible that elderly Food Stamp Program participants may frequently be referred by program staff to the SSI program and that, similarly, SSI recipients may be referred to the Food Stamp Program.

The low estimated participation rates for the New York comparison site, Albany County, are somewhat puzzling. Characteristics of the sample could partially

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[1/] Exact income limits for the SSI program depend on the sources of income received. However, support levels under SSI generally are quite low. As of July 1, 1981 the maximum federal SSI payments were $234.70 for an individual and $397.00 for a couple. Maximum additional state SSI supplementation amounts were $63.21 for an individual and $79.48 for a couple in New York; $12.00 and $10.00, respectively, in Oregon; and zero in South Carolina. The net income limits for Food Stamp Program eligibility as of that date were $359 for an individual and $474 for a couple.

[2/] It is not, of course, the case that all households in the non-SSI category in the tabulations have incomes above the SSI cutoff levels. Research reported by Worthington, et al., [1981] suggests that the SSI participation rate among elderly households eligible for SSI may be as low as approximately 60 percent. Thus, there are probably substantial numbers of households with quite low incomes in the non-SSI portion of the current tabulations. Nevertheless, average income levels are substantially lower among the SSI households eligible for the Food Stamp Program than among the non-SSI group.

explain the difference, because households in Albany have relatively high income levels[1] and, as discussed in the next chapter, income tends to be negatively associated with participation. However, as discussed in the next chapter, even after using probit to control for the effects of household characteristics, the estimated rates for the Albany site remain relatively low. We are not aware of any special feature of Albany County that could account for these low rates. However, the fact that the estimated rates for Albany are substantially lower for both the SSI and the non-SSI groups suggests that something other than just sampling error is involved. It may be worth noting that, as discussed in Volume III of this report, Albany was the only survey site where there was organized opposition to the survey from elderly groups, and response rates were substantially lower for Albany than for the other five sites. Thus, it is possible that nonresponse bias may account for at least part of the observed differences between Albany and the other areas. The reason why higher nonresponse would lead to this result, however, is not clear.

Differences in Estimated Participation Rates Between Demonstration and Comparison Sites

For two of the demonstration/comparison pairs of sites in Table VI.1, the estimated participation rates are higher for the demonstration site than for the corresponding comparison site. This is true for the New York sites (an overall estimated participation rate of .59 at the demonstration site as compared with .28 at the comparison site) and for the Oregon sites (rates of .44 as compared with .40).

Taken by themselves, these differences might suggest that the demonstration program had substantial effects on participation among the elderly households included in the survey. However, these differences should be examined in light of the aggregate data on changes in program participation discussed in the previous chapter. Table VI.2 displays percentage changes in participation at the demonstration and comparison survey sites during the evaluation period, based on the program data described in Chapter V.

At the New York demonstration site, the total number of elderly target population participants rose by 6.8 percent during the evaluation period. This was only slightly more than the 5.7 percent rise reported at the New York comparison site. In Oregon, the demonstration site had almost no change in the number of elderly target population participants, while the corresponding total for the comparison site dropped by 3.1 percent. Of the three pairs of survey sites, only at the South Caroline sites was there a substantially larger reported increase in participation at the demonstration site than at the comparison site. Interestingly, this is the only pair of sites where the participation rates estimated from the survey data do not show demonstration site/comparison site differences.

In light of these aggregate participation data, it seems unlikely that there were very substantial program-induced changes in participation rates at the New York and Oregon sites during the demonstration period. This suggests that the differences in participation rates found in the survey are either due to

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[1] See tabulations by site in Volume II, Appendix E.

TABLE VI.2

PERCENTAGE CHANGES IN REPORTED PARTICIPATION BY THE ELDERLY DURING DEMONSTRATION[a]

	Non-SSI Aged	SSI Aged	Two Groups Combined
New York Demonstration Survey Site	17.2%	2.9%	6.8%
New York Comparison Survey Site	50.2[b]	-15.7[b]	5.7
South Carolina Demonstration Survey Site	14.8	8.5	10.3
South Carolina Comparison Survey Site	-0.4	-3.6	-2.7
Oregon Demonstration Survey Site	5.1	-4.4	-0.1
Oregon Comparison Survey Site	-10.8	2.9	-3.1

[a] Data sources are described in Volume II, Appendix G.

[b] The New York comparison site experienced considerable difficulty supplying participation data disaggregated by participant category. It is possible that the apparently large fluctuations in individual categories reflect errors in the data.

sampling error or were present prior to the demonstration and are due to factors other than the demonstration itself. [1/]

Conclusions

There appear to be very substantial numbers of eligible nonparticipants among elderly households at each of the survey sites. Estimated participation rates among eligible households composed of persons more than 64 years old range from .28 to .80. These estimates should be regarded as lower bounds of the true participation rates because they are subject to downward bias due to underreporting of income and program participation. However, the available evidence suggests that even in light of these potential biasing factors, the estimated rates are probably approximately correct for most of the sites. For two of the pairs of survey sites, the demonstration sites had higher participation rates than did the corresponding comparison sites. However, when the data are examined in conjunction with program data on changes in participation at these sites during the evaluation period, it appears that the differences in the participation rates found in the survey are, in all likelihood, largely due to sampling error or to underlying differences among the sites rather than being due to the demonstration program.

[1/] More formally, the aggregate data suggest that the numerators of the participation rates at the sites—i.e., levels of participation—did not change substantially during the evaluation period. Thus, unless the denominators—i.e., the total numbers of eligibles—changed, it can be concluded that the participation rates did not change substantially during the period. Even though the survey was undertaken after the demonstration program had been in effect for a year, it is likely that any major differences between sites in participation rates that existed prior to the demonstration would still have been present at the time of the survey. This is particularly the case, given the evidence from the program records data discussed in Chapter V that the demonstration had relatively limited impacts on participation at the survey sites. It should be noted that differences that existed between sites prior to the demonstration would not have affected the analysis of the program records data, because that analysis focused on changes over time in participation patterns. The survey data could not be used to analyze changes over time because resource constraints limited the survey work to a single data collection period.

CHAPTER VII: NONPARTICIPATION

In addition to gathering program eligibility and participation data, the survey also collected information on client characteristics and on attitudes toward and experiences with the Food Stamp Program. This information, presented in this chapter, is of help in understanding reasons for nonparticipation. [1/]

Characteristics of participants and nonparticipants are compared below and possible reasons for nonparticipation are discussed. The decision to participate is then examined in the context of probit analysis which allows an assessment of the relative importance of the various factors that affect participation. Finally, the potential impacts are considered of switching to a flat grant Food Stamp Program for SSI recipients. This would automatically ensure that all SSI recipients receive food stamp benefits. Data tabulation results by site are presented in Volume II, Appendix E.

The tabulations presented in this chapter have been weighted to correct for the effects of the sample stratification. This weighting is described in Volume II, Appendix A. Estimates of sampling errors associated with the tabulations are presented in Volume II, Appendix C. The stratification is taken into account in the probit analysis by directly including the stratification variables as independent variables in the estimated equation.

CLIENT CHARACTERISTICS

Both the participant and the nonparticipant samples consisted principally of single-person households--81 percent of the participant households and 79 percent of the nonparticipants lived alone (Table VII.1). As might be expected with a low income, elderly population, the majority of households in both groups were headed by females. This included 70 percent of the participants and 65 percent of the nonparticipants.

The participants had a younger age distribution than did nonparticipants. The average age of participants was 73 years, that of nonparticipants, 75. Seven percent more of the participants as compared with the nonparticipants (31 percent versus 24 percent) were in the 65 to 69 year old category. By contrast, there were relatively higher proportions of nonparticipants in the three older categories displayed in the table.

Substantial majorities of both the participant and nonparticipant households in the sample were white. However, there was a somewhat higher proportion of blacks among the participants (40 percent) than among the nonparticipants (26 percent).

[1/] The survey is described briefly in the introduction to Chapter VI and in more detail in Volume III.

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TABLE VII.1

CHARACTERISTICS OF SAMPLE

	Participants[a]	Nonparticipants[b]
Household Size		
1	81	79
2	18	20
>3	<1	1
Sex of Head		
Male	30	35
Female	70	65
Age of Head		
65 - 69	31	24
70 - 74	31	32
75 - 79	19	23
≥ 80	18	21
AVERAGE	73 yrs	75 yrs
Race of Head		
Black	40	26
White	60	74
Other	0	0
Education of Head		
0 - 8 years	72	62
9 - 11 years	15	17
≥ 12 years	13	21
AVERAGE	6 yrs	8 yrs
Gross Monthly Income		
$0 - 100	1	1
$101 - 200	5	8
$201 - 300	42	22
$301 - 400	35	38
$401 - 500	12	17
$501 - 600	4	9
$601 - 700	1	4
$701 - 800	0	2
AVERAGE	$323	$367
Gross Income Divided by Poverty Standard		
0 - 25%	1	1
26 - 50%	4	5
51 - 75%	24	17
76 - 100%	55	37
101 - 130%	13	32
>130%	2	8
AVERAGE	0.84	0.94

Table VII.1 [continued]

	Participants	Nonparticipants
Percentage of Households Receiving Income from Various Sources [c]		
Social Security	90	97
SSI	57	16
Pensions	9	19
Earnings	2	6
Interest/Rents	4	9
Welfare	3	0
Other	3	5
Combinations of Income Received		
Soc Sec Income only	32	52
SSI income only	7	2
Soc Sec & SSI only	43	11
Soc Sec & Pensions only	8	16
Soc Sec & Earnings only	1	4
Soc Sec & Interest only	2	5
SSI, Soc Sec & Interest only	2	1
Other	5	9
Food Expenditures Divided by Gross Income [d]		
0 - 10%	4	8
11 - 20%	24	25
21 - 30%	31	32
31 - 40%	22	18
> 40%	20	17
AVERAGE	0.317	0.291
Medical Expenditures Divided by Gross Income		
0 - 10%	74	54
11 - 20%	13	19
> 20%	13	27
AVERAGE	0.112	0.198

[a] Based on 1,509 observations. Individual tabulations may have fewer observations because of missing data.

[b] Based on 815 observations. Individual tabulations may have fewer observations because of missing data.

[c] Percentages add to more than 100 because of receipt of income from multiple sources.

[d] Gross income does not include the value of food stamp benefits.

The average participant had six years of education, while the average nonparticipant had eight. Seventy-two percent of the participant heads of households had eight years of education or less, and only 13 percent had finished high school. The nonparticipants were slightly better educated but still had quite low education levels, with 62 percent having less than a ninth grade education and 21 percent having finished high school.

On average, the gross monthly income of a participant was $44 lower than that of a nonparticipant ($323 as compared with $367). Forty-eight percent of the participants as compared with only 31 percent of the nonparticipants had gross monthly incomes of $300 or less, while proportionately higher numbers of nonparticipants as compared with participants had incomes in higher income ranges.

Eighty-four percent of participants as compared with 60 percent of nonparticipants had incomes at or below the U.S. Government poverty standards. Only 2 percent of participants had incomes in excess of 130 percent of the standards as compared with 8 percent of nonparticipants.

Ninety percent of participants and 97 percent of nonparticipants received Social Security income. As might be expected on the basis of the participation rate analysis, the incidence of SSI receipt was considerably higher among participants than among nonparticipants (57 percent compared with 16 percent). The only other major source of income was pensions, which were received by 9 percent of participants and 19 percent of nonparticipants. With regard to these data, it is interesting to note that Social Security and SSI benefits are periodically adjusted for inflation. Thus most of the households in the sample receive at least some of their income from sources which are adjusted for price changes. Furthermore, substantial majorities of both participants and nonparticipants receive all of their income from such sources.

Food expenditures (including the value of food purchased with food stamp benefits) are approximately 32 percent of gross income for the participants in the sample. The percentage for nonparticipants is 29 percent. Medical expenses are approximately 11 percent of gross income for participants and 20 percent for nonparticipants.

TABULAR ANALYSIS OF REASONS FOR NONPARTICIPATION

No single factor by itself explains why substantial numbers of eligible households do not participate in the program. The survey data suggest that lack of information about possible program eligibility is clearly an important consideration. However, there is also evidence from the survey that stigma, problems of access, benefit levels, and negative experiences with the program may all be additional factors, with no single factor being the major determinant of participation.

This section presents tabular analysis of reasons for nonparticipation, and includes comparisons between program participants and nonparticipants with regard to a number of potential barriers to participation, including stigma and transportation problems. By themselves, however, tabular comparisons cannot provide a full analysis of reasons for nonparticipation, since they do not allow simultaneous examination of the effects of the many different possible determinants of participation. Therefore, the next section reports the results of a probit analysis of participation which allows joint examination of various factors which may affect the participation decision.

In examining reasons why eligibles are not participating, it is useful to begin by considering their past experiences with the program. As shown in Table VII.2, 46 percent of the eligible nonparticipants in the sample did at one time try to determine if they were eligible for food stamps,[1] and 36 percent actually applied. About two-thirds of those who applied—23 percent of the overall sample of nonparticipants—did receive food stamps at one time. Of the applicants who had not received food stamps, most (81 percent) reported that their applications had been denied.

Thirty-two percent of the households that had received food stamps but were not participants at the time of the survey, reported that their food stamp benefits had been terminated because of increased income. Other reasons frequently given for termination of program participation were convenience factors and the cost of stamps prior to the elimination of the purchase requirement.

These results suggest that for a substantial number of currently eligible nonparticipants, an important reason for nonparticipation may be past determination(s) of ineligibility.

In a separate question, respondents were asked whether they thought they were eligible for food stamps.[2] Thirty-three percent of the eligible nonparticipants believed themselves ineligible, 36 percent replied they didn't know, and 31 percent said they thought they were eligible. These answers suggest that many eligible persons are unaware of their eligibility, and this may be an important reason for nonparticipation.

Eligible nonparticipants who had never applied for food stamps were asked, in an open-ended question, why they had not applied. The answers were coded by the interviewers into the prespecified categories shown in Table VII.3. Substantial numbers of households cited the belief that they were ineligible as a reason for their nonparticipation. Also, many respondents indicated that they didn't need the benefits or that the benefits didn't seem worth the trouble.

One important focus of the current research is the question of whether "stigma," or embarrassment about receiving assistance, is an important deterrent to participation. This issue is of particular interest in the cashout demonstration, because one of the effects of cashout is that it makes participation in the program less visible by eliminating the need to use the coupons publicly in food stores. In answering the open-ended question about reasons for not applying, only 14 percent of the respondents gave being too proud to apply or being potentially embarrassed if other people knew they were participating as a reason for their nonparticipation.

Additional information about the stigma issue is available from responses to several other questions asked in the survey. Participants were asked whether they were "bothered" by having to accept food stamps, and nonparticipants were asked whether they would be bothered. As shown in Table VII.4, 21 percent of participants and 30 percent of nonparticipants indicated they were or would be

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[1] Most of the households that had attempted to determine their eligibility — about 73 percent—had done so by talking with a Food Stamp Program staff person.

[2] Answers were limited to "yes," "no," and "don't know."

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TABLE VII.2

PAST PROGRAM EXPERIENCE OF ELIGIBLE NONPARTICIPANTS

	Percentage
1. Percentage of all eligible nonparticipants who had tried to determine their eligibility for food stamps [a]	46
2. Percentage of all eligible nonparticipants who had applied for food stamps [a]	36
3. Percentage of all eligible nonparticipants who had received food stamps [a]	23
4. Disposition of application for those who applied but never received food stamps [b]	
Application denied	81
Changed mind; chose to do without	5
Other	14
5. Reason given for termination of food stamp benefits by those who had at one time received them [c]	
Family began earning too much money	32
Recertification took too long	9
Inconvenient	10
Transportation problem	13
Food stamps cost too much	12
Other	24
6. Percentage who believed themselves eligible for food stamps [a]	
Believe eligible	31
Believe ineligible	33
Don't know	36

[a] Based on 793 observations.

[b] Based on 86 observations.

[c] Based on 220 observations.

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TABLE VII.3

STATED REASONS FOR NONPARTICIPATION [a]

	Nonparticipants Who Never Applied [a] [b] (Percentage)
Believe ineligible	25%
Don't need the benefits	37
The benefits don't seem worth the trouble	21
Would be embarrassed if other people knew or too proud to apply	14
Couldn't get to the office	3
Don't know how to apply	2
Stamps cost too much	1
Never thought about it	12

[a] Based on 482 observations.

[b] Percentages add to more than 100 because multiple responses were allowed.

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TABLE VII.4

RESPONSES TO QUESTIONS RELATING TO STIGMA

	Percentage	
	Participants[a]	Nonparticipants[b]
1. "Bothered" by receiving food stamps		
Yes	21	30
No	79	70
2. Degree of embarrassment at telling friends they receive food stamps		
"very embarrassed"	6	15
"somewhat embarrassed"	13	17
"not embarrassed at all"	81	68
3. Perceive people in community as having less respect for food stamp recipients		
Yes	19	20
No	63	52
Don't know	18	28

[a] Based on 1,494 observations.

[b] Based on 788 observations.

bothered. Similarly, in reply to a question about how embarrassed they would be to tell friends they were receiving food stamps, 19 percent of participants and 32 percent of nonparticipants said they would be at least somewhat embarrassed, though only 6 and 15 percent, respectively, gave a reply of "very embarrassed." Also only 19 percent of the participants and 20 percent of the nonparticipants perceived people in their community as having less respect for food stamp recipients. Overall, these results provide evidence that, while stigma may be a significant deterrent for a considerable number of nonparticipants, it is probably not a major factor for most of them.

Problems related to access were also apparently a factor for some, but not most, nonparticipants. Only 3 percent of nonparticipants mentioned this as a consideration in response to the open-ended question about reasons for nonparticipation. However, as shown in Table VII.5, 29 percent of participants and 31 percent of nonparticipants characterized getting to the Food Stamp Program office as a "big problem," and less than half of each sample indicated that access was "no problem" at all.

Nonparticipants tended to live somewhat farther from the nearest program office than did participants. Only 9 percent of nonparticipants as compared with 15 percent of participants lived less than one mile from the nearest office. Twenty-seven percent of nonparticipants as compared with 22 percent of participants reported living more than nine miles away. Twenty-two percent of participants and 36 percent of nonparticipants reported owning a car, but 68 and 82 percent, respectively, indicated that they at least had access to one if they needed it.

Being entitled only to relatively low levels of food stamp benefits may also be a factor which affects the participation decision in some cases. As shown in Table VII.6, among single-person households, 39 percent of nonparticipants as compared with only 25 percent of participants were eligible for just the minimum $10 monthly benefit allotment.[1/] The contrast is even greater for multi-person households (36 percent as compared with 18 percent).

It is important to note, however, that even though many of the eligible nonparticipants have relatively low benefit entitlements, substantial numbers of them are eligible for quite high levels of benefits. More than one-fourth of all the eligible nonparticipant single-person households was eligible for more than $50 of benefits. Among multi-person households, 20 percent was eligible for benefits in excess of $50 and 13 percent was eligible for more than $80 of benefits. On average, participants received $34 worth of benefits per month, while nonparticipants were eligible for $33 of benefits.

In order to examine whether dissatisfaction with the Food Stamp Program was a factor in participation decisions, nonparticipants who had applied for food stamps were asked about their experiences with the program. As shown in Table

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1/ For both participants and nonparticipants, the food stamp allotments to which households were entitled were estimated on the basis of survey data on income, household size, and allowable deductions. The maximum allotments are $70 for a single-person household and $128 for a two-person household. The formula used to calculate benefits is described in Volume II, Appendix F.

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TABLE VII.5

RESPONSES TO QUESTIONS RELATING TO
FOOD STAMP OFFICE ACCESS

	Percentage	
	Participants[a]	Nonparticipants[b]
Perceive getting to program office as a problem		
"big problem"	29	31
"little problem"	28	26
"no problem"	42	43
Distance to FS office		
< 1 mi	15	9
1–2 mi	31	35
2–4 mi	16	11
4–9 mi	16	18
> 9 mi	22	27
Own car	22	36
Own or have access to car	68	82

[a] Based on 1,494 observations.

[b] Based on 717 observations.

TABLE VII.6

MONTHLY FOOD STAMP ALLOTMENTS

Food Stamp Amount	Percentage					
	Participants [a]			Nonparticipants [b]		
	1 Person Household	>1 Person Household	Total	1 Person Household	>1 Person Household	Total
$10	25	18	24	39	36	38
11 - 20	11	8	11	10	12	11
21 - 30	14	30	17	7	18	9
31 - 40	12	14	12	9	7	8
41 - 50	12	8	12	10	5	9
51 - 60	7	6	7	4	1	4
61 - 70	18	4	15	22	3	18
71 - 80	0	6	1	0	3	1
> 80	0	7	1	0	13	3
AVERAGE	$33	$39	$34	$32	$37	$33

[a] Based on 1,200 observations.

[b] Based on 609 observations.

VII.7, problems with the administration of the program were apparently not a deterrent to participation for most respondents. Seventy-seven percent of the sample characterized treatment at the program office as fine, and 65 percent reported that program staff were helpful. However, 10 percent of the respondents indicated that program staff had been rude, and 29 percent characterized them as not helpful. This could be a possible deterrent to participation for those individuals.

In a related question, program participants were asked "what kind of job" they thought the program was doing to "take care" of their food needs and were asked to respond according to the answer categories "good," "fair," or "poor." The results were generally quite positive, with 47 percent of respondents rating the program as "good" in this respect and another 31 percent rating it as at least "fair."

PROBIT ANALYSIS OF PARTICIPATION DETERMINANTS

Probit analysis was used to examine the effects of key variables on household probabilities of participating in the Food Stamp Program. This analytical technique, which is similar to regression analysis, makes it possible to examine the separate effects of various factors on the participation decision while statistically holding constant the effects of the other variables. [See Dhrymes, 1978, pp. 324-378.]

The dependent variable in the probit analysis was a 1,0 indicator of whether or not households were program participants. The independent variables included various factors which could affect the participation decision, including cashout itself, SSI receipt, household characteristics, and variables relating to possible reasons for nonparticipation, such as stigma and distance to the nearest Food Stamp Program office. In addition, sample stratification variables [having a locatable phone number and having returned a mail screening questionnaire] were included to control for the possible effects of the sample stratification. Because participation rates were found to differ substantially by site and according to whether or not a household received SSI income [see Chapter VI], a set of 1,0 variables was included to allow separate estimated rates for each SSI recipiency category [i.e., SSI/non-SSI] at each site.[1/]

[1/] The sample of households used in the probit estimates includes eligible households for which sufficient income and deductions data were available to determine Food Stamp Program eligibility. Missing data on income items believed likely to be small were treated as zero. Cases with missing data on important income items were excluded from the analysis. [See Volume II, Appendix F for details regarding the criteria used in excluding households with missing income data.] Households with missing data on any of the variables other than income were excluded from the analysis. Food Stamp Program participants who, on the basis of the survey data, appeared to be ineligible for the program were also excluded from the data set. Sample attrition due to these factors is discussed in Volume II, Appendix I.

TABLE VII.7

INTERVIEW RESPONSES RELATED TO PERCEPTION OF FOOD STAMP PROGRAM

	Percentage
1. Perception of experiences at food stamp office by nonparticipants who had applied[a]	
a. How treated	
"treatment was fine"	77
"people were rude"	10
b. Helpfulness of program staff	
"people were helpful"	65
"people were not helpful"	29
2. Perception by participants of "What kind of job Food Stamp Program is doing to take care of their food needs"[b]	
Good	47
Fair	31
Poor	21

[a] Based on 273 observations.

[b] Based on 1,425 observations.

[c] Percentages do not add to 100 because tabulations are based on separate questions.

Differences in Participation Probabilities

Table VII.8 shows the probit estimates of differences in Food Stamp Program participation probabilities by site and by SSI recipiency category.[1] There are 12 possible groups (six sites times two SSI categories) of which 11 were represented by 1,0 variables in the probit. The twelfth group, non-SSI recipients at the New York comparison site, was omitted and thus serves as the reference group in the analysis.[2] As shown in the table, the pattern of differences across these categories after controlling for other variables in the probit equation is quite similar to that shown in the raw participation rate tabulations presented in Table VI.1. SSI recipients at all sites had substantially higher participation probabilities than did non-SSI recipients, and the differences are statistically significant. Among the non-SSI recipients, those at most other sites had higher probabilities of participating than did those at the New York comparison site. However, the differences are in general not statistically significant.

One interesting difference between the pattern of probit-adjusted differences shown in Table VII.8 and the comparable pattern in the raw data in Table VI.1 concerns the non-SSI participation rates at the South Carolina sites as compared with the New York comparison site which was used as the reference group. The differences between South Carolina and New York are not as large in the probit results as they are in the raw data. This may partly reflect the fact that average gross income levels are lower in South Carolina than in the New York site. Income enters the probit equation with a negative sign (lower income is estimated to result in higher participation probabilities), and thus adjusting for this factor decreases the estimated differences between South Carolina and New York participation rates. Part of the reason that South Carolina households have higher participation probabilities, on average (see Table VI.1), is that they have lower average gross incomes. The probit equation controls for this factor and thus, the probit-adjusted differences between the South Carolina sites are smaller than the differences in the raw data.

1/ Entries in the right-hand-side column of the table show the absolute values of the t statistics associated with the parameters on which the estimates are based. They are thus indicators of the statistical significance of the estimates, with a t value of 1.96 being statistically significant with a .05 level two-tailed test. Effects of variables on the probability of participating are calculated at the mean value of the independent variables. It should be noted that the final equation specification was determined on the basis of preliminary analysis computer runs to identify what factors and what variable specifications appeared to be most meaningful in explaining participation. As a result, the significance tests associated with the reported t statistics must be regarded as indicative of statistical significance rather than as being rigorous tests in the classical statistical sense. Detailed probit results are presented in Volume II, Appendix M.

2/ The choice of which site/SSI recipiency group to omit does not affect the results. What is of interest in interpreting the probit estimates is the pattern of relative participation probabilities among the sites. If the probit were rerun with a different group omitted, the absolute magnitudes of the coefficients would change, but their relative sizes in comparison with each other would remain exactly the same.

TABLE VII.8

PROBIT ESTIMATES OF DIFFERENCES IN PARTICIPATION
BY HOUSEHOLD CATEGORY BY SITE
AFTER CONTROLLING FOR THE EFFECTS OF OTHER VARIABLES

	Estimated Difference Between Group Shown In Row Heading and Reference Group (Reference group is non-SSI recipients at the New York comparison site)	Absolute Value of Associated t Statistic
New York Demonstration/ SSI recipients	.51	6.62*
New York Demonstration/ non-SSI recipients	.14	1.52
New York Comparison/SSI recipients	.28	3.93*
South Carolina Demonstration/ SSI recipients	.41	5.63*
South Carolina Demonstration/ non-SSI recipients	-.01	0.15
South Carolina Comparison/ SSI recipients	.47	6.25*
South Carolina Comparison/ non-SSI recipients	.05	0.72
Oregon Demonstration/ SSI recipients	.50	6.75*
Oregon Demonstration/ non-SSI recipients	.16	1.98*
Oregon Comparison/ SSI recipients	.44	6.02*
Oregon Comparison/ non-SSI recipients	.09	1.18

NOTE: Asterisks indicate that parameters on which estimated effects are based are statistically significant, using a .05 level two-tailed test.

As noted in the analysis of the unadjusted data in Chapter VI, for New York and Oregon, estimated participation probabilities at the demonstration sites are consistently greater than the corresponding probabilities for the comparison sites. This pattern remains in the probit-adjusted results. However, in the probit equations, there is some tendency for the reverse to be true for the South Carolina pair of sites, with adjusted probabilities being somewhat higher for the comparison site than for the demonstration site. Overall, no clear pattern emerges across all of the sites, and in light of the aggregate participation data supplied by the survey sites, it seems likely that the observed differences between survey sites are largely due to factors other than the demonstration. (See Chapter VI for a fuller discussion of this issue.)

Effects of Other Client Characteristics

Table VII.9 presents additional results of the probit analysis. For each variable, the first column of numbers in the table shows the effect of a unit change in the variable on the probability of participating for an average household.[1/] For instance, the entry for the "Male" variable is -.07, indicating that, other things held constant, a household with a male head has a 7 percent lower probability of participating in the program than does a similar female-headed household.

As was suggested by the cross-tabulation results presented earlier, both the sex and the age of the head of household appear to have substantial effects on participation probabilities. Male-headed households have a statistically significant 7 percent lower probability of being program participants. After controlling for income and the other factors in the probit equation, households with heads 70-74 years of age have a 9 percent lower probability of participating than do households with heads in the 65-69 year old category. Households with heads older than 74 have a 10 percent lower probability than do households with heads 65-69 years old. These results are statistically significant.

The estimated effect of income on the probability of participation is negative, with an additional $100 per month of income resulting in an 8 percent decrease in the probability of participation. This may reflect the fact that families with relatively higher incomes perceive themselves to be less in need of government assistance than do very poor families. The estimated effect is statistically significant.

The estimated effect of the amount of food stamps to which households are entitled is positive but is very small and is not statistically significant. In interpreting this result, it should be kept in mind that all of the households in the sample were subject to the same benefit determination rules. As a result, most of the variation in benefit levels in the sample is accounted for by the income and household size variables that are entered independently

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1/ Changes in probabilities are evaluated at the means of the independent variables.

TABLE VII.9

DETERMINANTS OF PARTICIPATION
PROBIT RESULTS

Variable	Estimated Change in Probability of Participation from Unit Change in Variable	Absolute Value of Associated t Statistic
Male head of household (1, 0)	-.07	2.39*
Age of head 70-74 (1,0)	-.09	3.06*
Age of head greater than 74 (1,0)	-.10	3.60*
Gross monthly income (in $100 units)	-.08	3.97*
Amount of food stamps to which household is entitled (in $10 units)	-.002	0.26
Head has 8-11 years of schooling (1, 0)	-.13	4.44*
Head has 12 or more years of schooling (1,0)	-.16	4.42*
Member of household gets out of house daily (1,0)	-.04	1.74
Head of household black (1, 0)	-.002	0.06
Embarrassed for friends to know receiving food stamps (1, 0)	-.10	3.65*
Distance to food stamp office 1-4 miles (1, 0)	-.09	2.61*
Distance to food stamp office more than 4 miles (1, 0)	-.13	3.47*
Household owns or has access to car (1,0)	-.02	0.59

Table VII.9 (Continued)

Variable	Estimated Change in Probability of Participation from Unit Change in Variable	Absolute Value of Associated t Statistic
Household size greater than 1 (1, 0)	-.07	1.41
Rural location (1, 0)	-.01	0.24
Head of household Hispanic (1, 0)	-.02	0.23
Returned mail questionnaire (1,0)	.0007	0.02
Phone stratum (1,0)	.06	1.91
Constant	.39	3.51

NOTE: Asterisks indicate that parameters on which estimated effects are based are statistically significant, using a .05 level two-tailed test.

The sample size for the probit equation was 1949.

into the equation. Thus, the sample is not well-suited for analyzing the possible effect on participation of changes in overall benefit levels.

Households with heads who have at least some high school education have a statistically significantly lower probability of participating than do households whose heads have less education. In comparison with households whose heads had no high school education, those whose heads had nine to eleven years of school had a 13 percent lower probability of participation and those whose heads had completed high school had a 18 percent lower probability.

Getting out of the house daily has an estimated negative association with participation, although the estimate is not statistically significant. It is possible that this variable may in part control for morale or social connection factors, although it could also be picking up the effects of functional health considerations.[1/]

The variable indicating whether the head of the household is black has an extremely small negative effect on participation probabilities. The raw data tabulations presented in Table VII.1 suggest that blacks have a higher probability of participating than do whites. However, after holding other factors such as income and site differences constant in the probit analysis, the effect becomes very slightly negative.

Effects of Possible Barriers to Participation

The probit equation provides additional evidence that stigma may be a factor that affects participation for some households. Respondents who reported that they would be embarrassed to have friends know they were receiving food stamps had an 10 percent lower probability of participating than did respondents who indicated that they would not be embarrassed. This difference is statistically significant.

In assessing the importance of this result, it should be kept in mind that only approximately 21 percent of the sample indicated embarrassment. The probit estimate shows an 10 percent lower participation probability for these households. However, because such households constitute only 21 percent of the sample, this result implies that, overall, the reduction in participation rates resulting from this factor is approximately 2.1 percent [i.e., 21 percent times 10 percent].

[1/] In addition to the variable measuring frequency of getting out of the house, two other variables that may at least in part measure attitudinal factors were used in preliminary probit specifications. These other variables were indicators of positive and negative affects, or attitudes, as described in Bradburn [1969]. During this preliminary probit work, estimated coefficients on the positive affect variable were small and not statistically significant. Those on the negative affect variable were positive and statistically significant, suggesting that households with lower morale were more likely to be program participants. These variables were omitted from the final specification of the probit equation because data were missing for approximately 10 percent of the sample. Their inclusion would therefore have substantially reduced the available sample size. Inclusion of these variables would not have substantially altered the other estimated coefficients reported in the table.

There is also evidence that problems of access may be a barrier to participation for some households. Being one to four miles from a food stamp office as compared with being within one mile reduces the estimated participation probability by about 9 percent, and being more than four miles away reduces it by 13 percent. In both cases, the estimated parameters are statistically significant. The estimated effect of owning or having access to a car, however, is very small and not statistically significant.

SIMULATED FLAT-GRANT CASHOUT FOR SSI HOUSEHOLDS

Under current legislation, it is possible for a state to cash out food stamp benefits for SSI recipients by adding a supplemental grant in payment of food stamp benefits to monthly SSI checks for all SSI recipients in the state. Unlike the cashout plan tested in the current demonstration, this type of cashout does not necessarily link food stamp benefits with household net income levels.

Such a plan effectively guarantees that all SSI recipients will be participants in the Food Stamp Program. However, it may affect participant benefit levels. This section examines, for households in the survey sample, the potential impacts on benefit levels of one variant of this type of cashout plan. In particular, a program is simulated under which all SSI recipients would receive a food stamp grant of $15 per person. (The states which currently have flat grant benefits, California and Wisconsin, have payments of $10 per person. However, this $10 level was established several years ago, and a $15 level was chosen for the current analysis in order to take inflation into account.)

Changing food stamp benefits to a flat grant which is based only on household size has the potential for reducing benefits for some households and increasing them for others. One group which clearly would gain from such a change is SSI recipients who are not currently participating in the Food Stamp Program since such households would automatically begin receiving food stamp benefits. Among program participants, for households of a given size, those households receiving relatively high levels of benefits are most likely to be made worse off by a payment formula which is not conditioned by income, while those receiving relatively small amounts of benefits may be made better off.

Table VII.10 shows the effects on the elderly SSI households in the sample of calculating monthly Food Stamp Program benefits as $15 per person in the household. The majority of program participant households would receive lower benefits as a result of such a change. This is particularly true for one-person participant households. As shown in the first column of the table, 74 percent of one-person participant households would receive lower benefits as a result of the program change. Furthermore, for many of these households the reduction in benefits would be quite substantial. Twenty percent of such households would experience benefit reductions of $41 or more per month. Overall, the average change in benefits for one-person participant households would be a loss of $19 per month.

The second column of the table displays comparable data for multi-person households currently participating in the program, most of which consist of two persons. Fifty-three percent of such households would receive lower benefits under the simulated plan than they currently do, and the average change in benefits would be a loss of $10.

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TABLE VII.10

IMPACTS OF CALCULATING FOOD STAMP BENEFITS AS $15 PER PERSON
(Percentages of Households)

Impact On Food Stamp Benefit Level	Food Stamp Program Participants who Receive SSI			SSI Recipients Not Currently Participating In Food Stamp Program			All SSI Households
	One-Person Households	Multi-Person Households	Total	One-Person Households	Multi-Person Households	Total	
Decrease of:							
$41 or more	20%	12%	16%	0	0	0	14%
$31 - 40	9	5	8	0	0	0	6
$21 - 30	13	6	12	0	0	0	9
$11 - 20	18	7	16	0	0	0	13
$1 - 10	14	23	16	0	0	0	12
Total % Decrease	74	53	70	0	0	0	54
No Change	1	8	2	0	0	0	2
Increase of:							
$1 - 10	25	25	25	0	0	0	19
$11 - 20	0	15	3	100	0	81	20
$21 or more	0	0	0	0	100	19	4
Total % Increase	25	40	28	100	100	100	43
AVERAGE CHANGE	-$19	-$10	-$17	$15	$33	$18	-$9
Sample Size	1004	137	1141	246	41	287	1428

As noted earlier, SSI recipients not currently receiving food stamp benefits would be made better off by the simulated policy (Columns 4, 5 and 6 of the table). The average increase in benefits for one-person households is, of course, $15; for households with more than one person, it is $33, reflecting the fact that most multi-person households in the sample consist of two persons.

The final column of Table VII.10 shows the overall effect of the proposed change for SSI households taken as a whole. Since participation rates in the Food Stamp Program are relatively high among SSI recipients, the average net losses of benefits for current participants outweigh the average gains to the nonparticipant group, so that the average effect on SSI recipients taken as a group is a loss of $9.

It is also of interest to examine which income groups tend to receive higher or lower benefits under the simulated plan. As shown in Table VII.11, among current Food Stamp Program participants, the households that would receive lower benefits under the flat grant program tend to be clustered in relatively lower income brackets, with 74 percent having gross monthly incomes of $300 or less. Households that would gain from switching to the simulated plan have somewhat higher incomes, with only 14 percent having incomes of $300 or less and 28 percent (as compared with 6 percent of the reduced benefit group) having incomes above $400. The average income of the group with lowered benefits is $281 as compared with $373 for the group with increased benefits.

Similar patterns emerge when all households, including those not currently receiving food stamp benefits, are included in the tabulations. The households with reduced benefits under the flat grant plan tend to be clustered in relatively low income brackets and to have lower average incomes than do those who stand to gain from switching to the flat grant program.

TABLE VII.11

PROPORTIONS OF SSI HOUSEHOLDS WITH ALTERED BENEFITS UNDER FLAT GRANT PLAN, BY INCOME GROUP

Gross Monthly Income	SSI Households Currently Participating in Food Stamp Program: Households With Increased Benefits Under Simulated Plan [a]	SSI Households Currently Participating in Food Stamp Program: Households With Decreased Benefits Under Simulated Plan [b]	SSI Households Not Currently Participating in Food Stamp Program: Households With Increased Benefits Under Simulated Plan [c]	SSI Households Not Currently Participating in Food Stamp Program: Households With Decreased Benefits Under Simulated Plan	All SSI Households: Households With Increased Benefits Under Simulated Plan [d]	All SSI Households: Households With Decreased Benefits Under Simulated Plan [e]
$0 - 200	0%	8%	5	NA	2%	8%
$201 - 250	0	19	8	NA	5	19
$251 - 300	14	47	33	NA	24	47
$301 - 350	43	12	29	NA	36	14
$351 - 400	14	8	8	NA	10	7
≥ $400	28	6	18	NA	23	8
AVERAGE INCOME	$373	$281	$324	NA	$348	$281

NA = not applicable.

[a] Based on 263 observations.

[b] Based on 862 observations.

[c] Based on 287 observations.

[d] Based on 550 observations.

[e] Based on 287 observations.

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CHAPTER VIII: PROGRAM IMPACTS ON FOOD EXPENDITURES AND NUTRITIONAL INTAKE

In order to examine the degree to which the cashout demonstration affected food expenditures and dietary intake among elderly respondents, data on these variables were collected at the three pairs of demonstration and comparison sites at which the household survey for the project was conducted. [See Chapter VI for a description of the survey.] This information can be used both to assess the impacts of program benefits in the form of checks [using cashout site data] and also to examine the impacts of food stamp benefits received as coupons [using comparison site data]. Furthermore, by comparing estimated program impacts for cashout sites with those for comparison sites, it is possible to assess the impacts of cashout on the links between food stamp benefits and food expenditures and dietary intake. Of particular interest is whether effects on food expenditures and nutrient intake are less when program benefits are distributed in the form of cash rather than coupons.

This chapter includes: [1] a brief theoretical discussion of linkages between food stamps, food expenditures, and dietary intake; [2] descriptions of the methods used to assess these impacts in the current study; [3] a tabular analysis of how respondents perceived the impacts of the programs; [4] analyses of program impacts on food expenditures and nutrient intake; and [5] conclusions.

THEORETICAL IMPACT OF PROGRAM

Food stamp benefits provide households with additional purchasing resources, and it is generally agreed that an additional dollar of benefits can be expected to affect food expenditures and dietary intake by at least as much as another dollar of income. A key question in evaluating the Food Stamp Program as a separate program, however, is whether program benefits have impacts in the area of food beyond those that would be associated with additional income.

At first glance, it might seem obvious that program benefits in the form of coupons would have specific positive impacts in the area of food purchases because of the legal requirement that the coupons be used only for food items. This becomes less clear when the possibility is considered of substituting coupons for cash that would have been spent on food in the absence of food coupons. Food stamps may not lead to more food purchases if households simply use their coupons to purchase food items they would have bought with their own money in the absence of food stamps. As long as total food expenditures are more than the value of the food stamp benefits, the fact that the benefits come in the form of coupons may not cause households to spend more of their benefits on food than they would if the benefits arrived as cash.

An example may help make this clear. Consider two households, A and B, each of which has a gross monthly income of $300 and each of which spends $90 per month on food. Now suppose family A receives an additional $30 in income. Family A can choose to spend all, some, or none of that $30 to purchase additional food.

Suppose, also, that Family B receives $30 per month in food coupons. Although the coupons must be spent on food (and thereby provide a potential link between coupons, food expenditures, and nutrient intake), there is nothing to prevent Family B from reducing the cash it intended to spend on food by the entire $30. If it did so, Family B's food purchases and nutrient intake would remain constant and it would have an extra $30 to spend on other things (or more food). Consequently, a household that receives food stamp coupons is no more constrained than a household that receives cash, because both can substitute benefits for their own money.

Before the Food Stamp Act of 1977 eliminated the purchase requirement (EPR), substantial numbers of households participating in the program received coupon allotments (part of which they had to pay for) in amounts greater than the amounts of money they would have spent on food in the absence of food stamps.[1/] Thus, it is safe to assume that before EPR, the program had at least some impact on food purchases, although these effects were probably substantially lower than the face value of the coupons because of families substituting coupon purchases for money purchases. Since EPR, the coupon allotments most households receive are less than the amounts they would normally spend on food. Among the elderly households in the survey population, for instance, average monthly food stamp allotments for participating families are approximately $34, whereas average food expenditures are in excess of $90. Theoretically, at least, it is far from certain that the program presently has any substantial impact on food purchases.

Effects of the program on nutritional intake are even less clear on theoretical grounds. Increased food expenditures do not necessarily result in a more nutritionally adequate diet. Thus, even if the Food Stamp Program increases food expenditures, its impact on nutritional well being may be negligible.

The discussion so far has argued that there are no effective constraints that guarantee food stamp benefits will significantly increase food expenditures and nutritional intake any more than income transfers would. This does not, of course, prove that such impacts do not occur. It is quite possible that many families may treat food stamps differently from cash income in making their purchasing decisions, even though they are not compelled to do so. To the extent that this is the case, substituting cash for coupons could weaken impacts of the program on food expenditures and dietary intake. The question of whether food stamp benefits, either as coupons or as cash, significantly affect food purchases and dietary intake is one that ultimately must be addressed by observing household behavior with regard to these variables.

There have been several empirical studies of these issues. In general, these past studies have found that the impacts of the Food Stamp Program on food expenditures and nutrient intake are relatively limited. The available empirical evidence has been carefully reviewed in some detail by two different authors, Kenneth Clarkson (1975) and Maurice MacDonald (1977), who have written recent books that provide overall evaluations of the Food Stamp Program. In summarizing this past literature, both authors conclude that the available evidence suggests that, for most households, the use of coupons does not

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1/ See MacDonald (1977).

constrain food expenditures to be substantially greater than they would be if households received equivalent income supplements. In addition, both conclude that the program has relatively little, if any, impact on nutrient intake.

The studies reviewed by Clarkson and MacDonald used data collected prior to the elimination of the purchase requirement for food stamps. As discussed earlier, this change in the program substantially weakened whatever ties existed between food stamp benefits and food purchases. Thus it is reasonable to expect that, if they exist at all, Food Stamp Program impacts on food expenditures and nutrient intake are smaller now than they were when the studies reviewed by these authors were done.

None of the studies on which the above conclusions were based, however, focused specifically on the elderly. The current analysis therefore provides an opportunity to assess whether Food Stamp Program impacts are different for this group as compared with those observed for the food stamp caseload taken as a whole.

SURVEY RESPONSES REGARDING PROGRAM IMPACTS ON FOOD PURCHASES

Program participants interviewed during the survey were asked how they thought the program affected the amount and quality of their food purchases. In addition, participants at cashout sites who had been in the program prior to cashout were asked whether they thought that switching from coupons to checks had affected their food purchases.[1/]

Responses to such questions must be interpreted with caution because many participants may have had difficulty conceptualizing what their shopping patterns would have been in the absence of the Food Stamp Program or what the real effects of cashout were. Nevertheless, these data provide one indication of possible program effects on these key outcome measures.

More than half the sample members indicated that their food stamp benefits induced them to buy more food or better quality food than they would have purchased in the absence of food stamp benefits (Table VIII.1). Sixty-one percent reported an increase in the amount of food bought as a result of benefits, while 34 percent reported purchasing better quality food.[2/] Altogether, 63 percent reported that either quantity and/or quality had increased. Of the remaining respondents, most reported that their food purchases were unaffected by program participation, with only 3 percent reporting a decrease in amount or quality. Demonstration site and comparison site participants did not differ substantially in their responses to these questions.

When asked whether the switch from coupons to checks had altered their food purchases, most respondents at demonstration sites indicated that this had not been the case. As shown in Table VIII.2, 80 percent of the respondents said the amount of food they purchased was the same after the switch, and 89 percent

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1/ The survey is described briefly in the introduction to Chapter VI and in more detail in Volume III.

2/ The data tabulations reported in this section are weighted using the weighting factors described in Volume II, Appendix A.

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TABLE VIII.1

PERCEIVED EFFECTS OF FOOD STAMP BENEFITS
ON FOOD BUYING AMONG PROGRAM PARTICIPANTS

	Demonstration Site Participants[a]	Comparison Site Participants[b]	Total
1. Effect on Amount of Food			
More	59%	61%	61%
Less	3	2	2
Same	38	37	37
2. Effect on Quality of Food			
Better	33	31	34
Lower	2	1	1
Same	65	65	65
3. Percentage Who Reported Buying Either More Food or Better Quality Food	62	64	63
4. Percentage Who Reported Buying Either Less Food or Lower Quality Food	4	3	3

[a] Based on 734 observations.

[b] Based on 755 observations.

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TABLE VIII.2

PERCEIVED EFFECTS ON FOOD PURCHASES OF SWITCHING FROM STAMPS TO CHECKS[a]

	Percentage
1. Effect on Amount of Food	
More	7
Less	13
Same	80
2. Effect on Quality of Food	
Better	5
Lower	6
Same	89
3. Percentage Who Reported Buying Either More Food or Better Quality Food	9
4. Percentage Who Reported Buying Either Less Food or Lower Quality Food	15

[a] Based on 592 observations.

reported buying the same quality food. Of the minority of respondents who reported having changed their food purchases as a result of the switch to checks, 9 percent believed that the amount and/or quality of the food they bought had increased and 15 percent believed the amount and/or quality of their food purchases had decreased.

IMPACTS ON FOOD EXPENDITURES

Data on food expenditures were collected as part of the eligibility/participation interviews during the summer and early fall of 1981. The basic survey instrument question with regard to food expenditures was patterned after a similar question in the 1972-73 Consumer Expenditure Survey conducted by the U.S. Bureau of Labor Statistics. The question asked respondents to estimate their usual monthly food purchases, including those made with food stamp benefits.

During preliminary analysis of the survey data, evidence suggested that many respondents may not have fully understood the question. In particular, it was found that for the comparison site data, reported food purchases were negatively correlated with food stamp bonus amounts.[1/] One possible explanation for the pattern observed in the data is that at the comparison sites, where food stamp benefits are issued as coupons, some respondents may not have included food bought with coupons in their answers. Furthermore, discussions about this issue with interviewers who had worked on the initial survey revealed that the interviewers believed the initial question to have been a confusing one which could have led to respondent error.

As a result of these findings, a decision was made to recontact those eligible respondents who could be reached by telephone in an attempt to obtain more accurate information. In these callbacks, the initial question about food expenditures was repeated in a somewhat simplified form without mentioning food stamps. Then a series of structured probes was used to ensure that food bought with food stamp benefits was included in the respondents' estimates of their food purchases. It was found during this probing that 16 percent of participants at demonstration sites and 23 percent of participants at comparison sites did not fully include purchases made with food stamp benefits in their answers to the initial callback question until after they were asked to do so during the follow-up probing. This provides additional evidence that the data obtained in the initial survey may be inaccurate, with the errors in the data being correlated with cashout versus noncashout status.

Given this evidence, the analysis of food expenditures for this report has been based on the data collected in the callbacks rather than on the original data. A limitation of these data for the purposes of the analysis is that this callback information is applicable to a period several months later than the

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1/ This effect persisted even when using regression analysis to control for the effects of other variables that might be correlated with both participation and food expenditures. Such a result was contrary to theoretical expectations and was also different from the corresponding result for cashout sites. The effect was found both in analysis of all food expenditures including food purchased and eaten outside the home and also in analysis limited to food eaten at home.

other household information in the data set. Thus, the expenditures estimates that were used in the analysis must be viewed as proxies for the true expenditures at the time the other data were collected. However, it is likely that for most of the elderly households in the survey population, income data and other information collected during the full survey would not have changed substantially during the following months.[1/] It is therefore reasonable to believe that the results of the analysis based on the callback data are not substantially affected by the difference in the periods to which the data are applicable.

Differences between participants and nonparticipants in average monthly food expenditures are shown in Table VIII.3. Interestingly, at both the demonstration and the comparison sites, average food expenditures for participants were somewhat lower in the raw data than those of nonparticipants, although the differences between participants and nonparticipants are not statistically significant in either case.

In assessing the differences in the raw data reported in the table, it should be noted that simple comparisons of average expenditure levels may be misleading because they do not take into account the fact that other variables, including income and household size, may be correlated with both food expenditures and participation. In the present analysis, for instance, income is positively correlated with expenditures and negatively correlated with participation, and this is at least part of the reason for the negative relationship in the raw data between expenditures and participation.

To control for the effects of income and other variables, regression equations were run in which the dependent variable was monthly food expenditures and the independent variables included a 1,0 indicator of program status; household income in dollars;[2/] and a number of other variables that may affect food expenditures, including sex and race of the head of the household, size of the household, location of the household, and whether the household received SSI.

[1/] Respondents who, during the callback interviews, reported household sizes that were different from their original interviews were excluded from the analysis. Approximately 5 percent of the callback interviews were eliminated from the analysis for this reason.

[2/] The same gross income variable used for the eligibility calculations reported in Chapter VI was used in the regressions. It is essentially last month's income [not counting the value of food stamp benefits], modified by any changes expected in the coming month concerning items received in the previous month. The sample of households used in the regression includes eligible households for which sufficient income and deductions data were available to determine Food Stamp Program eligibility. Missing data on income items believed likely to be small were treated as zero. Cases with missing data on important income items were excluded from the analysis. [See Volume II, Appendix F for details regarding the criteria used in excluding households with missing income data.] Households with missing data on any of the variables other than income were excluded from the analysis. Food Stamp Program participants who, on the basis of the survey data, appeared to be ineligible for the program were also excluded from the data set.

Two sampling variables, whether the household returned an eligibility screening mail questionnaire and whether the household was in the phone sample, were also included to control for possible effects of the sample stratification.

The fourth column in Table VIII.3 shows estimated participant/nonparticipant differences, after using regression analysis to control for the effects of other variables that might be expected to affect expenditures. As shown in the table, after controlling for these other variables, the estimated effects of program participation on food expenditures are positive at both the comparison and the demonstration sites. Food expenditures are estimated to be $4.57 higher, on average, for participants than for nonparticipants at comparison sites and $1.81 higher at demonstration sites. Neither of these estimates, however, is statistically significantly different from zero in the specification of the regression equation on which Column 4 of Table VIII.3 is based. Furthermore, the difference between the estimated effects is also not statistically significant. Thus, while these results suggest a slight tendency for the Food Stamp Program to have greater effects at the comparison sites as compared with the cashout sites, the difference between the estimated effects is quite small [$4.57 minus $1.81, or $2.76] and is not statistically significant.

The complete regression results on which the fourth column of Table VIII.3 is based are displayed in Table VIII.4. As shown in the table, income, household size, the head of the household being male, and a rural location all have positive effects on food expenditures. The head of the household being black is negatively correlated with expenditures.

Table VIII.5 presents the results of regression equations in which participation in the program is represented as the food stamp bonus amounts of participants. [The variable is set equal to zero for nonparticipants.][1/] These regressions are of interest because inclusion of the dollar value of food stamp benefits in the regressions makes it possible to compare the marginal impact on food expenditures of an additional dollar's worth of food stamp benefits [provided as coupons or cash] with the marginal impact of another dollar of ordinary income.

Estimated coefficients on the bonus amount variable can be interpreted as showing how much an additional dollar of food stamps increases food expenditures. The coefficients on the income term can be interpreted in a corresponding manner. For instance, the estimated coefficient of .12 on the food stamp benefit variable in the first column of the table indicates that at comparison sites an additional dollar of food stamp benefits is estimated to result in an increased food expenditure of 12 cents.

As shown in the table, the estimated effect of food stamp benefits remains positive when the program is represented by the bonus amount variable, and in this equation specification the program coefficient for demonstration sites is statistically significant. However, examining the results of this specification highlights the fact that the estimated impact of food stamp benefits is quite small. For comparison sites, the estimated effect is 12 cents per dollar of benefits, while for demonstration sites it is 17 cents. The demonstration site coefficient is statistically significant; that for the comparison site is not.

[1/] Food stamp bonus amounts have been estimated on the basis of the income, household size, and deductions data obtained during the survey.

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TABLE VIII.3

DIFFERENCES IN MONTHLY FOOD EXPENDITURES BETWEEN PARTICIPANTS AND NONPARTICIPANTS

	(1)	(2)	(3)	(4)
	Raw Data			
	Participants	Non-Participants	Difference	Difference After Controlling for Effects of Other Variables[a]
Comparison Sites	$92.52	$98.15	$-5.63 [1.45][b]	$4.57 [1.18]
Demonstration Sites	$92.95	$98.07	$-5.12 [1.29]	$1.81 [.43]

[a] See Table VIII.4 and Appendix M for full regression results.

[b] Absolute values of t statistics are shown in parentheses.

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TABLE VIII.4

REGRESSION ANALYSIS OF THE DETERMINANTS
OF MONTHLY FOOD EXPENDITURES
USING 1,0 INDICATOR OF PROGRAM PARTICIPATION

Explanatory Variables	(1) Comparison Sites	(2) Demonstration Sites
1,0 indicator of Food Stamp Program participation	4.57 (1.18)	1.81 (0.43)
Income in dollars	0.07* (3.16)	0.04 (1.64)
1,0 indicator of household size greater than 1	28.21* (4.22)	33.44* (4.93)
1,0 indicator of whether head of household is male	26.18* (5.07)	15.57* (3.08)
1,0 indicator of whether head of household is black	-7.97 (1.78)	-9.84* (2.35)
1,0 indicator of rural location	1.98 (0.44)	6.29 (1.34)
1,0 indicator for New York Demonstration site	NA	14.91* (3.00)
1,0 indicator for New York Comparison Site	7.78 (1.75)	NA
1,0 indicator for South Caroline Demonstration site	NA	1.34 (0.29)
1,0 indicator for South Caroline Comparison site	10.55* (2.26)	NA
1,0 indicator for Oregon Demonstration site	NA	NA
1,0 indicator of receiving SSI	8.70 (1.86)	-5.01 (1.01)

Table VIII.4 (Continued)

Explanatory Variables	[1] Comparison Sites	[2] Demonstration Sites
1,0 indicator of having returned mail screener questionnaire	11.81* [2.30]	-8.78 [1.74]
1,0 indicator of being in telephone sample stratum	3.51 [0.47]	1.49 [0.17]
Constant term	44.46* [3.98]	72.76* [5.96]
Mean of Dependent Variable	94.49	94.61
Sample Size	705	685
R^2	0.23	0.20

NOTES: NA = not applicable.

Absolute values of t statistics are shown in parentheses.

Asterisks indicate that coefficients are statistically significant using a .05 level two-tailed test.

TABLE VIII.5

REGRESSION ANALYSIS OF THE DETERMINANTS
OF MONTHLY FOOD EXPENDITURES
USING FOOD STAMP BONUS AMOUNT AS PROGRAM VARIABLE

Explanatory Variables	(1) Comparison Sites	(2) Demonstration Sites	(3) All Sites Pooled
Food stamp bonus amount in dollars	.12 (1.58)	.17* (2.33)	.14* (2.76)
Income in dollars	.08* (3.42)	.06* (2.29)	.07* (4.25)
1,0 indicator of household size greater than 1	25.16* (3.56)	29.66* (4.28)	26.27* (5.33)
1,0 indicator of whether head of household is male	25.91* (5.04)	15.07* (3.00)	20.36* (5.66)
1,0 indicator of whether head of household is black	-8.19 (1.83)	-9.58* (2.35)	-8.86* (2.94)
1,0 indicator of rural location	1.93 (.45)	6.56 (1.41)	3.76 (1.20)
1,0 indicator for New York Demonstration site	NA	15.00* (3.03)	14.08* (3.03)
1,0 indicator for New York Comparison site	7.58 (1.71)	NA	7.55 (1.75)
1,0 indicator for South Caroline Demonstration site	NA	1.36 (0.30)	1.67 (.42)
1,0 indicator for South Caroline Comparison site	10.90* (2.34)	NA	10.66* (2.51)
1,0 indicator for Oregon Demonstration site	NA	NA	.45 (.11)
1,0 indicator of receiving SSI	9.03* (1.99)	-6.41 (1.37)	1.28 (.39)

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Table VIII.5 (Continued)

Explanatory Variables	(1) Comparison Sites	(2) Demonstration Sites	(3) All Sites Pooled
1,0 indicator of having returned mail screener questionnaire	11.53* [2.25]	-8.61 [1.72]	1.37 [.38]
1,0 indicator of being in telephone sample stratum	3.93 [.52]	2.03 [.23]	2.83 [.50]
Constant term	40.67* [3.49]	65.00* [5.19]	51.88* [5.99]
Mean of Dependent Variable	94.48	94.81	94.55
Sample Size	705	685	1,390
R^2	.23	.21	.21

NOTES: NA = not applicable.

Absolute values of t statistics are shown in parentheses.

Asterisks indicate that coefficients are statistically significant using a .05 level two-tailed test.

The comparable effects of an additional dollar of income at comparison and demonstration sites are eight cents and six cents, respectively. Both are statistically significant.

For both types of sites, the estimated coefficient on the bonus amount variable is somewhat larger than that associated with the income variable, thus providing some evidence that food stamps may have a greater impact on food expenditures than does regular income. For instance, the results suggest that at comparison sites, an additional dollar of food stamp benefits increases food expenditures by four cents more (twelve cents as compared with eight cents) than does a dollar increase in income. In neither case, however, are the estimated differences between the effects of income and the effects of food stamps statistically significant.[1/]

As discussed above, the estimated impact of food stamps at the cashout sites is somewhat higher than that at the comparison sites when the equation specification that includes the bonus amount variable is used. However, the difference is not statistically significant, and it seems unlikely that cashout, which weakens the link of food stamp benefits to food expenditures and nutrient intake, would result in greater program effects. Thus, it is reasonable to conclude that the different estimated impacts between the cashout and the comparison sites are, in all likelihood, due to sampling error. The above arguments are thus consistent with the hypothesis that switching from coupons to cash does not substantially alter the effects of the Food Stamp Program on food expenditures.

It is of interest to pool the data across the different types of sites and to estimate the impacts of food stamp benefits with the combined sample, thus increasing the precision of the parameter estimates by increasing the available sample size.[2/] The third column of Table VIII.5 displays the results of this regression. As shown, the estimated effect of the program in this regression is that one dollar of additional benefits results in 14 more cents spent on food. This estimated effect is statistically significant and is twice the estimated effect of a one dollar increase in regular income. However, the difference between the bonus amount parameter and the income parameter is not statistically significant.

Overall, these results provide substantial evidence that the Food Stamp Program increases food expenditures. There is also some evidence that the impact of one dollar of program benefits may be greater than that of one dollar of ordinary income, but this latter result is not statistically significant.

1/ An F test of the hypothesis that the coefficients are the same fails to reject this hypothesis.

2/ In performing the pooled regression, separate 1,0 variables were included for each site to allow for cross-site variation in expenditures. An F test was performed to test the hypothesis that observed behavior as modeled in the regression was the same for both the cashout and non-cashout sites. The test failed to reject this hypothesis at the .05 significance level, thus providing additional evidence that pooling is appropriate.

The regression results imply that at the mean values of the relevant variables, a 1 percent rise in income increases food expenditures by approximately .24 percent.[1/] This elasticity estimate is within the range of elasticities found in other studies of food expenditures by low income households. Using Bureau of Labor Statistics Consumer Expenditure Survey data for 1973-74, West [forthcoming] estimated an elasticity of food expenditures with respect to income on the order of .10. Hymans and Shapiro [1976], using panel data, found an elasticity of .32 for low income households.

EFFECTS ON NUTRIENT INTAKE

Description of Data

Data with which to examine program effects on dietary intake were collected from randomly-chosen members of the elderly households included in the eligibility/participation survey. A 24-hour recall methodology was used, in which respondents were asked to report all of their food and beverage consumption for the day prior to the survey. The interview included structured probing questions to help respondents recall their consumption as accurately as possible, and respondents estimated portion sizes using a two-dimensional visual model food portion guide. The food information was converted to nutrient intake data using coding procedures and computer software adapted from those used in the Health and Nutrition Examination Study (HANES) conducted by the U.S. Department of Health and Human Services. The data collection procedures are discussed in detail in Volume III.

Two aspects of the data should be noted. First, since only one day of data is available for each respondent, the data are most appropriate for analyzing <u>average intake</u> of nutrients rather than analyzing percentages of persons meeting adequacy standards. The reason is that nutrient intake is known to vary substantially from day to day. Thus, individuals whose diets may appear to be below adequacy standards on any given day may have perfectly adequate diets when food consumption over a longer period of time is examined, and this could significantly affect an analysis of percentages of individuals meeting adequacy standards.[2/]

This difficulty does not arise, however, when <u>average</u> nutrient intakes are considered. In analysis based on average nutrient intake, individuals who happen to have unusually high values of nutrient consumption on the day of their interview balance out those with particularly low values. The result is average estimates that are not biased by the variability of individual daily consumption.[3/] For this reason, the analysis of the data collected for the

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1/ The elasticity of food expenditures, F, with respect to income, Y, was computed as the derivative of food expenditures with respect to income divided by the ratio of the two variables, i.e., as [dF/dY]/[F/Y]. The [dF/dY] term was calculated as .07, the estimated coefficient on income in the third column of Table VIII.5. The term [F/Y] was calculated as [$94/$321].

2/ See Burk and Pao [1976].

3/ More technically, the reason that one-day recall can lead to biased results when focusing on whether or not adequacy ratios are met is that using this outcome measure effectively truncates the distribution of nutrient intake at 100 percent of the adequacy standard. Thus, high observations cannot totally balance low observations. No such truncation occurs when levels of intake are examined.

current study has focused chiefly on levels of nutrient intake.[1/] It should also be noted that, as described in Volume II, Appendix J, the average nutrient intake levels found in the current study tend to be approximately 7 percent lower than corresponding estimates obtained for low income elderly persons ages 65-74 in the HANES survey performed by the U. S. Department of Health, Education, and Welfare (1979) in the early 1970s and about 19 percent lower than those found for low income persons over 64 years old in a 1977-1978 U. S. Department of Agriculture (USDA) survey (1982).

There are several possible reasons for these differences. First, as discussed in Volume III, the interviewing protocols and data processing software used in the current survey were, for the most part, patterned after those used by HANES. Thus, it is likely that a substantial share of the differences between the results of the current survey and those of the USDA survey are not due to factors unique to the current survey, such as the use of a telephone interviewing methodology, but rather are due to differences between the HANES and USDA methodologies. It is not currently possible to determine whether the HANES or USDA procedures are the more accurate.[2/]

Another factor that should be considered is seasonal consumption patterns. Most of the interviews for the current study were conducted during the summer of 1981; the USDA survey was conducted during November 1977 to March 1978, and the HANES survey was conducted over all seasons over a multi-year period. Interviewers reported that many respondents in the current study remarked that it "was just too hot to eat" when asked about their food consumption,[3/] and this could have had a downward effect on food consumption, particularly with regard to calorie and protein intake.[4/] Data consistent with this possibility are presented in Volume II, Appendix J, where it is shown that for each of the nine nutrients studied, consumption levels were lower on days when the high temperature was 85 degrees or more. As discussed in Appendix J, the differences

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[1/] Results of probit analysis of percentage of respondents who met adequacy standards are presented in Volume II, Appendix J.

[2/] It should be noted that the HANES data for most nutrients other than calories and protein may themselves underestimate current consumption levels. The reason is that the HANES data were collected in the early 1970s, and there is evidence from the periodic USDA surveys that consumption levels of most nutrients other than calories and protein have been rising. However, the HANES intake estimates are, in general, lower than even those obtained in an earlier 1965-66 USDA survey done prior to HANES. This suggests that even after changing consumption is taken into account, there are differences between HANES and USDA procedures that lead to significantly different intake estimates.

[3/] This was particularly true at the Oregon site, which experienced record high temperatures during parts of the survey period.

[4/] On the other hand, the negative effects of the heat may have been partially offset by possible positive effects from fresh fruits and vegetables being available during the summer months.

were sufficiently large to suggest that, on average, nutrient intake recorded in the survey may have been approximately 5 percent lower than it would have been if none of the interviews had taken place on days with high temperatures.

It should be noted that, strictly speaking, these data cannot be interpreted as directly showing the effect of having conducted the interviews over the summer. Rather these data show between-day variation within the summer months. The tabulations thus demonstrate that within the summer months, hotter days tend to lower consumption, but they do not provide direct evidence regarding the possibility that overall patterns of nutrient intake may be lower (or higher) in the summer as compared with other times of the year. It is possible at the conceptual level that the effect of having interviewed during the summer could be either greater or lesser than the 5 percent estimate suggested by the tabulations. Nevertheless, the data are at least consistent with the possibility that observed levels of intake were lower because of summer interviewing.

Also, the sample of elderly persons for the current study is somewhat different from the USDA sample. The available USDA data include all low income elderly persons; the current survey was limited to food stamp eligible elderly living in households with no members under 65 years old. It seems likely that elderly persons may, on average, have access to more and better food when they are living in larger households that include younger members as well.

Another possibility, however, is that some food consumption may have been underreported in the current survey. There is no way to ascertain whether this is the case. It is important to note, however, that even if some underreporting did occur, there is no reason to believe that it affected any of the key conclusions of the analysis. The reason is that the focus of the analysis is on comparisons of dietary intake between groups of individuals, such as comparisons between program participants and nonparticipants or comparisons between participants receiving cash and participants receiving coupons. Even if some underreporting occurred in the survey there is no reason to believe it would have occurred differentially more among some of these groups rather than others.

Analytic Methods

Two basic approaches have been used in the analysis of program effects on nutrient intake. First, differences in average values of nutrient intakes for program participants as compared with nonparticipants have been examined and formal difference of means tests have been used to assess the statistical significance of observed differences. Because it is possible that program effects may be different depending on whether benefits are distributed as coupons or as checks, the analysis has been performed separately for comparison and demonstration sites.

A potential difficulty with this first approach of simply comparing average intakes between groups is that participants and nonparticipants differ with regard not only to participation status but in other variables as well. Thus, it is not possible to use simple comparisons and know conclusively whether observed differences are attributable to program status. Conversely, if only relatively small differences are observed, it cannot be known in simple difference of means comparisons whether spurious correlations with other variables may be hiding larger true program effects.

To minimize this problem, multiple regression methods have been used to control for the effects of other key factors in analyzing program effects on nutrient intake. For each nutrient studied, recorded individual nutrient intake has been regressed on a 1,0 indicator of program participation[1] as well as on such factors as household income, sex of respondent, ethnic background of respondent, and household size.[2]

It is important to note that use of multiple regression analysis does not totally avoid possible "self-selection" problems in the analysis caused by participants being systematically different from nonparticipants. Only variables that can be measured have been controlled for in the regression work, and thus the possibility of the program variable picking up unobserved differences remains.[3] Nevertheless, the use of multiple regression represents an important step in at least partially controlling for these other factors.

Details concerning the exact set of variables included in the regressions are discussed below, where their effects on nutrient intake are examined.[4] It

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[1] The specification of the program effects in the dietary-intake regression equations differs somewhat from the way the program was represented in parts of the food expenditures analysis. Because food expenditures are measured in dollars, it was of interest in parts of the food expenditures analysis to represent the program using the dollar value of the food stamp bonus amount in order to estimate what portion of an additional dollar of food stamps is spent on food. Because nutrient intakes are not denominated in dollars, this reason for using the bonus value variable is not applicable to the current analysis. For clarity of presentation, therefore, the program has been represented in the dietary intake regressions using the 1,0 indicator of program participation. The basic results are not substantially altered if bonus value is used instead.

[2] The complete set of control variables used is listed in Table VIII.9 below.

[3] A number of articles in the econometrics literature [e.g., Heckman (1976) and Heckman (1979)] have suggested an additional approach to controlling for self selection. Essentially, this approach uses information about the estimated probability of individual cases being in the group of interest [in the present case, being Food Stamp Program participants] to insert a correction factor into the estimated effects equation [in the present case, the nutrient intake regression]. This approach was tried in the present study, using the results of a probit participation analysis equation similar to that reported in Chapter VII. Insertion of the correction factor did not substantially alter the estimated coefficients on other variables in the equation. Therefore, for simplicity and to avoid the loss of cases for whom the correction factor could not be calculated because of missing data, the correction factor was dropped from the equation. This is discussed more fully in Volume II, Appendix J.

[4] The exact set of control variables used in the dietary intake regressions differs somewhat from that used in the food expenditures regressions. In part, this reflects the fact that certain control variables for the dietary intake analysis reflect attributes of individuals rather than households. Thus they are appropriate for the dietary intake analysis, where the individual is the unit of analysis, but not for the food expenditure regressions, where the household is the unit of analysis. Differences in control variables used also reflect differences in what factors were found to be important during preliminary analysis leading up to the final equation specifications.

should be noted here that the income variable used is the sum of gross dollar income and the dollar value of food stamp benefits received, if any. Thus, the estimated coefficients on the food stamp variable in the regressions should be interpreted as measuring the specific effects of food stamps over and above the effects of an equivalent increase in other income.

The final equations on which the results reported in this chapter are based are the result of considerable testing of alternative specifications. With regard to functional form, equations with the natural logarithms of nutrient values were run in addition to the equations reported in the text based on the actual nutrient intake levels. With regard to independent variables, equations were run that included a number of other household and person descriptors in addition to those in the final specifications.[1] In addition, equations were run with the program variable parameterized in terms of food stamp bonus allotment rather than a 1,0 indicator of program status. Tests were also conducted of the effects of including variables to control for possible interviewer effects. While estimated parameters varied somewhat depending on these various specifications, the results reported in this section are broadly representative of the results obtained with alternative equation specifications. It should also be noted that observations which, because of illness or other reasons, reported no caloric intake during the day covered by the interview were dropped from the statistical analysis.

Program Impacts on Nutrient Intake

The results of the analysis suggest that the Food Stamp Program has, at most, quite limited impacts on nutrient intakes among the survey population. As shown in Columns 1 and 2 of Table VIII.6, nutrient intake at the comparison sites was somewhat higher among participants than among nonparticipants for one nutrient, Vitamin A, and lower for the others. As indicated by the t statistics reported in parentheses in the third column of the table, only one of the observed differences [the one for calories] is statistically significant.

Estimates of program effects based on regression equations are displayed in the fourth column of the table.[2] The estimated effects, after controlling for other variables, are positive for five nutrients and negative for the others. However, none of the effects is statistically significant. Furthermore, as shown in the last column of the table, most of the differences are quite small in relation to the average values of the nutrients consumed. Only the differences for Vitamins A and C are 10 percent or more of average consumption levels, and for the other nutrients, the differences are less than 5 percent.

Comparable results for cashout sites are shown in Table VIII.7. Differences between participants and nonparticipants are generally somewhat larger and more positive at the cashout sites than at the comparison sites. Cashout

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[1] Variables which were included in earlier specifications but which have been omitted from the final specifications because they did not appear to have significant impacts on nutrient intake include age and weight of respondent, several attitudinal scales, rural location, Hispanic background, whether meals are usually prepared at home, and whether members of the household participated in subsidized meals programs.

[2] Complete regression results are presented in Volume II, Appendix M.

TABLE VIII.6

DIFFERENCES IN NUTRIENT INTAKE BETWEEN PARTICIPANTS AND NONPARTICIPANTS

COMPARISON SITES

	(1)	(2)	(3)	(4)	(5)
	Raw Data			Difference After Controlling for Effects of Other Variables	Difference In Column 4 as % of Average Nutrient Consumption
	Coupon Participant	Non-Participant	Difference		
Calories (Kcal)	1201.79	1296.37	-94.58* (1.98)	-13.84 (0.26)	-1%
Protein (gm)	47.26	51.33	-4.07 (1.78)	-0.37 (0.15)	-1%
Calcium (mg)	478.61	503.59	-24.98 (0.88)	19.49 (0.62)	4%
Iron (mg)	8.13	8.87	-0.74 (1.69)	-0.31 (0.63)	-4%
Vitamin A (IU)	4901.00	4581.86	319.14 (0.43)	916.80 (1.08)	19%
Vitamin C (mg)	71.77	78.51	-6.74 (1.20)	-7.23 (1.13)	-10%
Thiamin (mg)	0.94	0.99	-0.05 (1.19)	0.01 (0.26)	1%
Riboflavin (mg)	1.24	1.30	-0.06 (0.61)	0.03 (0.28)	2%
Niacin (mg)	11.12	11.83	-0.71 (1.18)	0.22 (0.33)	2%

NOTES: Entries are units of nutrient.

Absolute values of t statistics are shown in parentheses under entries in Columns (3) and (4).

Asterisks indicate that estimated differences are statistically significant with a .05 level two-tailed test.

See Volume II, Appendix M for full regression results.

Percentages in last column are calculated using entries in first column.

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TABLE VIII.7

DIFFERENCES IN NUTRIENT INTAKE BETWEEN PARTICIPANTS AND NONPARTICIPANTS

CASHOUT SITES

	(1)	(2)	(3)	(4)	(5)
	Raw Data				
	Cashout Participant	Non-Participant	Difference	Difference After Controlling for Effects of Other Variables	Difference In Column 4 as % of Average Nutrient Consumption
Calories (Kcal)	1221.06	1160.69	60.37 (1.24)	75.08 (1.38)	6%
Protein (gm)	47.37	43.29	4.08* (1.92)	4.79* (2.01)	10%*
Calcium (mg)	460.18	390.25	69.93* (2.81)	72.23* (2.58)	16%*
Iron (mg)	7.99	7.59	0.40 (1.21)	0.58 (1.52)	7%
Vitamin A (IU)	4270.87	3912.80	358.07 (0.95)	391.54 (0.89)	9%
Vitamin C (mg)	79.71	64.36	15.35* (2.63)	16.59* (2.50)	21%*
Thiamin (mg)	0.92	0.87	0.05 (1.43)	0.10* (2.41)	11%*
Riboflavin (mg)	1.15	1.06	0.09 (1.65)	0.10 (1.51)	9%
Niacin (mg)	10.64	10.25	0.39 (0.73)	0.52 (0.86)	5%

NOTES: Entries are units of nutrient.

Absolute values of t statistics are shown in parentheses under entries in Columns (3) and (4).

Asterisks indicate that estimated differences are statistically significant with a .05 level two-tailed test.

See Volume II, Appendix M for full regression results.

Percentages in last column are calculated using entries in first column.

participants had higher measured intake than did nonparticipants for each of the nine nutrients studied, and three of the differences are statistically significant. Controlling for the effects of other variables by regression analysis does not substantially alter the pattern of results. The estimated differences remain positive but the majority are not statistically significant.

Estimated program effects at the cashout sites being larger than those at the comparison sites is surprising because it might be expected that cashout, by weakening the link between food stamp benefits and food, would reduce program effects, not increase them. In light of this, a reasonable interpretation of the results appears to be that the true program effects are similar for both sets of sites and that the observed differences between them are due largely to random sampling error.[1/]

Because the estimated program effects are consistently greater at the cashout sites for all the nutrients, a contrary argument might be made that for some unidentified reason, cashout actually does have more impact on nutrient intake than the conventional program does. However, this line of argument ignores the fact that the consumption levels of the various nutrients are quite highly correlated—individuals with high values of one nutrient tend to have high values of others as well. Thus, the estimated program effects for the nine nutrients cannot be regarded as independent observations. Random sampling error could have produced the observed patterns of results.

This possibility that random sampling error led to the observed results is further supported by the fact that participants at the comparison sites and participants at the cashout sites had quite similar levels of dietary intake. Most of the differences in estimated program impacts are not due to differences between participants at the two types of sites but rather are due to relatively high nutrient intakes for the nonparticipant sample at the comparison sites. For each of the nine nutrients, observed intake was higher for the comparison site nonparticipants than for the demonstration site nonparticipants. Because nonparticipants are not affected by the way in which program benefits are distributed, this is further evidence that the apparently higher program impacts at the demonstration sites are due to sampling variation and, in particular, are due to sampling variation in the nonparticipant samples.

Given the arguments made above, it is of interest to pool the data and to use the resulting larger data set to obtain more precise overall estimates of Food Stamp Program effects. Results of this analysis are reported in Table VIII.8.[2/] There is no evidence in the results that the Food Stamp Program had substantial

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[1/] Only one of the differences between the estimated program impacts at the comparison sites and those at the cashout sites—that for Vitamin C—is statistically significant.

[2/] In performing the pooled regression, separate 1,0 variables were included for each site to allow for cross-site variation in nutrient intakes. F tests were performed to test the hypothesis that all of the data from both the cashout and non-cashout sites were drawn from the same population. The tests failed to reject this hypothesis at the .05 significance level, thus providing additional evidence that pooling is appropriate.

TABLE VIII.8

DIFFERENCES IN NUTRIENT INTAKE BETWEEN PARTICIPANTS AND NONPARTICIPANTS

ALL SITES POOLED

	[1]	[2]	[3]	[4]	[5]
	Raw Data			Difference After Controlling for Effects of Other Variables	Difference In Column 4 as % of Average Nutrient Consumption
	Participants	Non Participants	Difference		
Calories (Kcal)	1211.41	1231.67	-20.26 (0.59)	28.59 (0.75)	2%
Protein (gm)	47.32	47.58	-0.18 (0.12)	2.01 (1.16)	4%
Calcium (mg)	469.40	449.54	19.86 (1.05)	44.48* (2.11)	9%*
Iron (mg)	8.07	8.26	-0.19 (0.70)	0.11 (0.36)	1%
Vitamin A (IU)	4586.22	4262.82	323.40 (0.76)	649.69 (1.34)	14%*
Vitamin C (mg)	75.74	71.76	3.98 (0.98)	3.41 (0.74)	5%
Thiamin (mg)	0.93	0.93	-0.002 (0.07)	0.05 (1.68)	5%
Riboflavin (mg)	1.20	1.19	0.01 (0.16)	0.06 (0.84)	5%
Niacin (mg)	10.88	11.08	-0.20 (0.49)	0.31 (0.89)	3%

NOTES: Entries are units of nutrient.

Absolute values of t statistics are shown in parentheses under entries in Columns [3] and [4].

Asterisks indicate that estimated differences are statistically significant with a .05 level two-tailed test.

See Volume II, Appendix M for full regression results.

Percentages in last column are calculated using entries in first column.

impacts on nutrient intake among the study population. Most of the estimated effects, after controlling for other variables, are positive, but they are quite small, and only one—that for calcium—is statistically significant.

Effects of Other Variables

While the most important focus of this analysis has been the effects of the Food Stamp Program on dietary intake, it is also of interest to examine the estimated impacts of the other variables in the regression equations. This section summarizes the general regression results using as illustrations four specific regressions (calories, protein, iron, and calcium) for the combined sample. Complete definitions of variables used are given in Volume II, Appendix F, and complete results of all the regressions are included in Volume II, Appendix M.

Perhaps the single most surprising result in the regressions is that income has no effect on nutrient intake among the sample households. The estimated coefficients on income are mostly negative, but they are very small and have very low t statistics associated with them, thus suggesting that the true effect of income is probably very close to zero. Prior to the analysis, it had been expected that income levels would be significantly positively related to at least some of the nutrient intake variables. However, this does not appear to be the case, at least for the elderly, low income sample included in the current study.

Although the income variables did not enter the estimated equations significantly, several other factors emerged as predictors of nutrient intake. The sizes of the estimated coefficients and significance levels of these variables differed somewhat, depending upon the nutrients examined but several patterns warrant comment. A respondent's report that the 24-hour nutrient intake interview covered a day when consumption was lower than usual or that it was constrained by consumption of a low calorie diet generally was negatively associated with nutrient intake. Black respondents had lower intakes, on average, than others, as did respondents who reported consumption for a weekend day. In contrast, male respondents and persons who mentioned at least three of the basic four food groups in response to a question designed to test nutrition knowledge had higher than average nutrient intakes. Within the comparison sites, increased socialization of a respondent, as indicated by frequency of seeing or talking with friends or relatives, had a positive effect on most nutrients. In the cashout sites, a respondent's functional health, as measured by his or her ability to do various tasks, had a positive relationship with nutrient intake.

To illustrate the results obtained, summaries of the pooled regressions for calories, protein, iron, and calcium appear in Table VIII.9. A respondent's ability to report at least three of the basic four food groups (a proxy for nutrition knowledge) had a consistently positive and significant impact on the intakes of these nutrients. The effects were on the order of 10 percent or more. Being male had a consistent positive effect on intakes of the nutrients and was significant for all four equations. A respondent's perceived functional health [1/] had a significant positive effect on three of the nutrients but was negatively (though not significantly) associated with calcium intake.

[1/] Functional health was measured by ability to do certain activities. Higher values of the variable reflect better functional health. The computation of the variable is described in Volume II, Appendix F.

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TABLE VIII.9

REGRESSION ANALYSIS OF THE DETERMINANTS OF NUTRIENT INTAKE
(Illustrative regressions; pooled data from all sites)

Explanatory Variables	Dependent Variables			
	Calories	Protein	Iron	Calcium
1,0 indicator of participation	28.59 (0.75)	2.01 (1.16)	0.11 (0.36)	44.48* (2.11)
Monthly income in dollars	-.08 (0.35)	-.01 (0.98)	-.003 (1.60)	-.03 (0.27)
1,0 indicator of nutrition knowledge	132.08* (4.01)	6.06* (4.00)	0.81* (2.99)	74.09* (4.05)
1,0 indicator of whether respondent is male	183.46* (4.46)	10.45* (5.53)	0.85* (2.50)	81.53* (3.57)
Functional health scale	32.65* (3.34)	0.88* (1.95)	0.18* (2.17)	-0.32 (0.06)
1,0 indicator of food consumption lower than usual	-237.92* (4.88)	-11.77* (5.26)	-2.00* (4.99)	-111.20* (4.11)
1,0 indicator of food consumption higher than usual	120.84 (1.45)	2.25 (0.59)	0.67 (0.97)	22.61 (0.48)
1,0 indicator of frequent contact with friends or relatives	26.31 (0.79)	2.48 (1.63)	0.48 (1.76)	18.58 (1.01)
1,0 indicator of whether head of household is black	-139.54* (3.52)	-2.04 (1.12)	-1.19* (3.65)	-58.56* (2.66)
1,0 indicator of preparation of food a problem	-34.43 (0.69)	-3.36 (1.28)	-0.54 (1.14)	-21.56 (0.68)
1,0 indicator of whether household receives SSI	29.06 (0.76)	-0.53 (0.30)	0.24 (0.75)	-4.28 (0.20)
1,0 indicator of whether home-produced food is used	99.64* (2.57)	2.67 (1.50)	0.27 (0.84)	20.47 (0.95)
1,0 indicator of whether household size greater than 1	37.61 (0.63)	3.28 (1.20)	1.03* (2.10)	18.37 (0.56)
1,0 indicator of low calorie diet	-190.40* (3.31)	-1.47 (0.55)	-0.74 (1.55)	-8.39 (0.26)
1,0 indicator of interview covering weekend day	38.50 (1.07)	-0.25 (0.15)	-0.34 (1.15)	-37.99 (1.90)
1,0 indicator of New York cashout site	55.41 (0.86)	2.55 (0.88)	0.01 (0.02)	1.74 (0.05)
1,0 indicator of New York comparison site	97.51 (1.60)	3.00 (1.07)	0.47 (0.94)	69.95* (2.07)
1,0 indicator of South Carolina cashout site	-65.04 (1.18)	-8.16* (3.23)	-0.91* (2.01)	-130.66* (4.28)
1,0 indicator of South Carolina comparison site	-58.14 (1.02)	-5.90* (2.26)	-0.63 (1.34)	-108.59* (3.44)
1,0 indicator of Oregon cashout site	-28.87 (0.51)	-3.94 (1.52)	-0.72 (1.53)	-48.38 (1.54)

Table VIII.9 (continued)

Explanatory Variables	Dependent Variables			
	Calories	Protein	Iron	Calcium
Constant term	1086.94* (10.65)	46.30* (9.89)	8.71* (10.36)	481.43* (8.51)
Mean Value of Dependent Variable	1218.43	47.38	8.13	462.53
Sample Size	1684	1684	1684	1684
R^2	0.081	0.072	0.057	0.078

NOTES: Entries are units of nutrient.

Absolute values of t statistics are shown in parentheses.

Asterisks indicate that estimated differences are statistically significant with a .05 level two-tailed test.

A respondent's report that food consumption during the 24-hour dietary intake period was lower than usual had a consistently negative and significant impact on the intake of these nutrients. The order of magnitude of this effect was approximately 20 percent. Increased social contact had a consistently positive, though insignificant, effect on nutrient intake. In addition, black respondents and respondents who reported food preparation problems had consistently lower nutrient intakes.

SUMMARY OF PROGRAM EFFECTS

The sections above have examined the impacts of food stamp benefits—both in the form of coupons and in the form of checks—on food expenditure and dietary intake. The results are generally consistent with the findings of other recent studies which have concluded that the impacts of the program are quite limited.

With regard to food expenditures, regression analysis of the survey data suggests that food stamp benefits do increase food expenditures. However, apparently there is considerable substitution of food stamp benefits for money which households would have spent on food in the absence of the program, since, while the estimated impact is statistically significant, only an estimated 14 cents out of each additional dollar of benefits is spent on additional food. The estimated marginal impact on food expenditures of one dollar of additional food stamp benefits is somewhat greater than that for one dollar of additional regular income, but the difference is not statistically significant. Impacts on food expenditures do not appear to be significantly lower in cashout sites than

In addition, several variables emerged as relatively consistent positive correlates of nutrient intake. These include better functional health, the respondent being male, knowledge of nutrition, and socialization. Conversely, respondent reports of lower than usual dietary intake, constrained intake due to low calorie diets, respondents being black, and respondents indicating food preparation problems were associated with negative effects on nutrient intake.

INCOME, FOOD EXPENDITURES, NUTRIENT INTAKE

In order to obtain additional insight with regard to the analyses of food expenditures and dietary intake, this section presents cross tabulations of these variables.

Income and Food Expenditures

The regression analysis presented earlier suggests that food expenditures rise as income increases but that they rise at a much slower rate than income. Table VIII.10 shows the proportions of income[1/] that households in different income categories spend on food.[2/] These data are consistent with the regression findings. As shown in the table, in the tabulations for all households in the sample, average food expenditures rise from $80 per month for the lowest income group to $121 for the highest income category. While food expenditure levels tend to rise with income, however, they do not rise proportionately, so the proportion of income spent on food declines consistently as income rises. For the lowest income group, the proportion of income spent on food is 47 percent, and it declines to 25 percent for the highest income group.

In order to isolate the effects of income differences from possible effects of different household sizes, the table also displays separate tabulations for single-person households. The observed patterns in the data are similar for these tabulations, with the proportion of income spent on food declining as income increases.

Food Expenditures and Nutrient Intake

Table VIII.11 shows similar tabular data concerning the relationship between food expenditures and nutrient intake.[3/] These data make it possible to examine nutrient intake per dollar spent on food.[4/] In general, levels of nutrient intake are lower for the lowest food expenditure category than they are for higher ones. However, throughout the remainder of the range of food expenditure

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1/ In order to fully represent available household purchasing power, the income variable used in the tabulations includes the values of food stamp benefits households receive.

2/ The tabulations in Table VIII.10 are weighted using the weights described in Volume II, Appendix A.

3/ Tabulations in Tables VIII.11 and VIII.12, which involve individual person data, are weighted using the weights described in Volume II, Appendix A, with each weight doubled for multi-person households. This adjustment in the weights is necessary because the weights in Appendix A are designed to make the sample representative of all eligible households. However the individual is the unit of observation in the analysis of nutrient intake, and without the adjustment, persons in multi-person households would be underrepresented in the sample.

4/ Ratios of nutrient intake to food expenditures are sometimes referred to as nutritional efficiency ratios (see MacDonald, 1977).

TABLE VIII.10

RELATIONSHIP OF INCOME AND FOOD EXPENDITURE

Gross Monthly Income Including Food Stamp Benefits	All Households			One-Person Households		
	Percent of Households	Average Monthly Food Expenditures	Monthly Food Expenditure Divided by Gross Monthly Income Including Food Stamp Benefits	Percent of Households	Average Monthly Food Expenditures	Monthly Food Expenditure Divided by Gross Monthly Income Including Food Stamp Benefits
$1 - 250	8	$80	.472	9	$78	.457
$251 - 300	22	83	.295	27	83	.294
$301 - 350	32	86	.268	37	86	.264
$351 - 400	17	86	.257	18	93	.249
≥ $401	21	121	.248	9	95	.216
AVERAGE		$87	.286		$87	.283
SAMPLE SIZE	1479			1222		

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TABLE VIII.11

RELATIONSHIP BETWEEN FOOD EXPENDITURES AND NUTRIENT INTAKE

Monthly Food Expenditure	Percent of Households	Calories		Protein		Calcium		Iron	
		Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure
≤ $50	18%	984.70	27.35	39.09	1.06	350.31	9.87	6.40	0.18
$51 - 70	18	1353.30	21.49	50.65	0.81	493.37	7.85	9.51	0.15
$71 - 90	20	1218.20	14.82	44.07	0.54	461.92	5.64	7.54	0.03
$91 - 110	17	1271.30	12.46	50.54	0.50	485.92	4.75	8.31	0.08
$111 - 130	9	1306.21	10.43	53.34	0.43	497.87	3.99	8.40	0.07
≥ $131	18	1166.74	6.50	44.73	0.25	430.44	2.41	7.60	0.04

Food Expenditure	Vitamin A		Thiamine		Riboflavin		Niacin		Vitamin C	
	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure	Intake	Intake/Food Expenditure
≤ $50	3455.47	90.81	0.75	0.021	0.91	0.025	8.80	0.24	66.72	1.88
$51 - 70	7913.15	122.73	1.00	0.016	1.58	0.025	13.78	0.22	70.76	1.25
$71 - 90	4096.62	49.87	0.93	0.011	1.13	0.014	9.84	0.12	85.20	1.03
$91 - 110	3736.61	36.51	0.99	0.010	1.21	0.012	11.33	0.11	73.10	0.71
$111 - 130	3922.19	31.39	1.04	0.008	1.24	0.010	11.47	0.09	64.49	0.55
≥ $131	4329.22	23.82	0.91	0.005	1.14	0.006	10.76	0.06	75.89	0.43

categories, there is no clear relationship between food expenditures and nutrient intake. For the most part, levels of nutrient intake are similar for various food expenditures categories, and where differences do exist, there seem to be no consistent patterns in the data.

The fact that nutrient intake does not consistenly rise with increasing food expenditures implies that the nutrient intake per dollar spent on food decreases as food expenditures rise. With regard to calories, for instance, the number of kilocalories per dollar spent on food decreases from approximately 27 kilocalories per dollar for households with relatively low food expenditures to six and one-half kilocalories per dollar for households at the higher range of food expenditures. Similar patterns can be observed for other nutrients. It appears, therefore, that—at least for the low income elderly households in the sample—when households increase their food expenditures they purchase more expensive foods but they do not, in general, purchase food with more nutrients. It is possible that increased expenditures are directed toward foods which are more highly processed and therefore more expensive and/or that the increased expenditures may be for better quality foods, such as more expensive cuts of meat.

Income and Nutrient Intake

Taken together, Tables VIII.10 and VIII.11 are useful in interpreting the nutrient intake regression results reported earlier which showed that neither higher levels of income nor the receipt of food stamps had any substantial impacts on nutrient intake. Table VIII.10 suggests that only relatively small proportions of additional purchasing power are directed toward increased food expenditures, while Table VIII.11 indicates that, in general, higher food expenditures do not necessarily lead to higher levels of nutrient intake. Thus both of these links in the possible connection between income and nutrient intake are relatively weak, and, in light of this, it is not surprising that the nutrient intake regression results did not show significant relationships between purchasing resources and nutrient intake.

Table VIII.12 provides additional tabular evidence regarding the lack of any systematic relationship between income and nutrient intake. As shown in the table, there are no consistent relationships in the tabular data between these variables. To be sure, there appears to be some tendency for persons in the lowest income category to have lower than average nutrient intake. However, this is not consistently true for all nutrients, and no general pattern of rising consumption levels with rising income is evident across the other income categories.

RATIO OF FOOD EXPENDITURES TO THRIFTY FOOD PLAN

It is also of interest to compare reported food expenditures to levels in the Thrifty Food Plan. This plan, which is the basis of Food Stamp Program benefit calculations, specifies the estimated cost of an inexpensive diet which meets recommended daily allowances of nutrients. As shown in Table VIII.13, 41 percent of households in the sample had food expenditures greater than 125 percent of Thrifty Food Plan levels, and another 18 percent were between 101 and 125 percent. There were, however, substantial numbers of households with reported expenditures well below Thrifty Food Plan levels, including 8 percent for whom expenditures were 50 percent or less of those specified by the Thrifty Food Plan.

TABLE VIII.12

RELATIONSHIP BETWEEN INCOME AND NUTRIENT INTAKE

Gross Monthly Income Including Food Stamps Benefits	Percent of Households	Calories		Protein		Calcium		Iron	
		Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income
$1 - 250	9	1174.06	6.57	41.73	0.23	414.30	2.30	8.30	0.046
$251 - 300	23	1288.34	4.57	56.59	0.20	421.44	1.49	8.60	0.03
$301 - 350	30	1201.77	3.72	45.97	0.14	458.66	1.42	7.77	0.024
$351 - 400	16	1237.54	3.32	49.95	0.13	431.82	1.16	8.50	0.023
≥ $401	22	1197.93	2.48	46.64	0.10	449.88	0.94	7.95	0.016

Gross Monthly Income Including Food Stamps Benefits	Vitamin A		Thiamine		Riboflavin		Niacin		Vitamin C	
	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income	Intake	Intake/Gross Monthly Income
$1 - 250	4210.50	26.02	0.98	0.0054	1.19	0.0068	9.92	0.056	65.87	0.36
$251 - 300	4231.95	14.95	0.96	0.0034	1.16	0.0041	12.35	0.044	65.20	0.23
$301 - 350	4744.51	14.60	0.91	0.0028	1.21	0.0037	10.46	0.032	78.53	0.24
$351 - 400	4243.22	11.38	0.95	0.0026	1.12	0.0030	11.56	0.031	77.99	0.21
≥ $401	3970.62	8.11	0.98	0.0020	1.13	0.0023	11.03	0.023	61.15	0.13

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TABLE VIII.13

RATIO OF FOOD EXPENDITURES TO THRIFTY FOOD PLAN

Ratio of Food Expenditures to Thrifty Food Plan	Households with One Person	Households with More than One Person	All Households
< 51%	8	10	8
51 - 75%	15	21	16
76 - 100%	17	17	17
101 - 125%	16	23	18
> 125%	44	29	41
Sample Size	1222	257	1479

CHAPTER IX:
ATTITUDES TOWARD CASHOUT

Households and program staff members at the demonstration sites were generally pleased with cashout. This chapter discusses experiences with and attitudes toward cashout among survey households [1/] and opinions expressed by program staff members during the interviews conducted for the administrative processes and costs analysis.

HOUSEHOLD EXPERIENCES WITH AND ATTITUDES TOWARD CASHOUT

As discussed in Chapter II, information about cashout was included in the standard outreach programs conducted at demonstration sites. Nevertheless, only 50 percent of eligible nonparticipants at the demonstration survey sites reported having heard of the cashout program (Table IX.1). This suggests that one explanation of the relatively limited effects of cashout on participation may be that substantial numbers of potential participants were unaware of the program. To the extent this is true, it is possible that the long run participation effects of an ongoing program would be somewhat greater than those observed during the demonstration.

Substantial majorities of respondents who had opinions about cashout, (76 percent of participants and 79 percent of eligible nonparticipants) stated they preferred distribution of food stamp benefits by check rather than by coupons. Of the overall samples, including respondents who expressed no opinions, only 16 percent of participants and 13 percent of nonparticipants favored coupons. For both groups, the main reason given was that checks were perceived to be more convenient or easier to use (Table IX.2). Seventy-six percent of participants and sixty-four percent of eligible nonparticipants who preferred checks expressed this view in response to an open-ended question about reasons for their preferences. Substantial numbers of respondents also mentioned as an advantage of cashout benefits the fact that checks could be used to purchase anything. Twenty-two percent of participants and 30 percent of nonparticipants mentioned stigma-related factors such as checks being less visible or checks not making the user feel embarrassed as being among their reasons for preferring checks. Ten percent of participants and 2 percent of nonparticipants indicated they preferred checks because coupons were inconvenient.

Among respondents who favored coupons, the primary advantage was perceived to be that coupons ensure that food stamp benefits are spent on food (Table IX.3). Substantial numbers of respondents also expressed the view that stamps were more convenient.

Forty percent of participants at cashout sites indicated that their checks had arrived late (Table IX.4). However, only 3 percent reported having had problems

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1/ The survey is described briefly in the introduction to Chapter VI and in more detail in Volume III.

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TABLE IX.1

TABULATION OF AWARENESS OF AND ATTITUDES TOWARDS CASHOUT

	Participants [a]		Eligible Nonparticipants	
1. Had heard of cashout program (Cashout sites only)	NA		50% [b]	
2. Attitudes toward cashout	All Respondents	Respondents Expressing Opinion	All Respondents [c]	Respondents Expressing Opinion
Prefer checks	52%	76%	48%	79%
Prefer coupons	16	24	13	21
No Opinion	32	NA	39	NA

NOTE: NA = not applicable.

[a] Based on 1,480 observations.

[b] Based on 379 observations.

[c] Based on 789 observations.

TABLE IX.2

REASONS FOR PREFERRING CHECKS

	Participants [a/][c/]	Eligible Nonparticipants [b/][c/]
Checks more convenient or easier to use	76	64
Checks can be used for anything	28	31
With checks people don't know you get food stamp benefits or with checks you feel more dignified, not embarrassed	22	30
Stamps inconvenient	10	2

[a/] Based on 816 observations.

[b/] Based on 388 observations.

[c/] Percentages add to more than 100 because multiple responses were allowed.

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TABLE IX.3

REASONS FOR PREFERRING STAMPS

	Participants [a/][c/]	Eligible Nonparticipants [b/][c/]
Stamps ensure food stamp benefits are spent for food	46	70
Stamps more convenient	35	25
Checks difficult to cash	2	3
Other	21	9

[a/] Based on 243 observations.

[b/] Based on 103 observations.

[c/] Percentages add to more than 100 because multiple responses were allowed.

TABLE IX.4

CLIENT EXPERIENCE WITH BENEFITS

	Demonstration Site Participants	Comparison Site Participants
Percentage reporting benefits arrived late	40[a/]	25[b/]
Percentage reporting benefits lost or stolen	3[a/]	3[b/]
Percentage reporting check cashing fee	3[a/]	NA
Median check cashing fee among those reporting fee	$.50[c/]	NA

Note: NA = not applicable

[a/] Based on 666 observations.

[b/] Based on 757 observations.

[c/] Based on 21 observations.

with lost or stolen checks. Also, only 3 percent of respondents reported having to pay a fee to cash their checks. For these households, the median check cashing fee was fifty cents. Twenty-five percent of participants at comparison sites reported ATPs or coupons arriving late and 3 percent reported having had ATPs or coupons lost or stolen.

Overall, the conclusion that emerges from these data is that most participants at demonstration sites found the switch to cashout to be a positive one, and relatively few of them had any significant problems with the check issuance process.

OPINIONS OF PROGRAM STAFF

All of the site project staff interviewed thought that cashout was a good policy for SSI recipients and the elderly.[1/] The reduced transaction and redemption fees in ATP issuance sites and the lower postage and security costs in direct coupon issuance sites were seen as major advantages of cashout.

In addition, staff at several sites believed that check issuance reduced the number of benefit replacement requests and tightened control of possible fraud by leaving a better audit trail. It was not possible to assess the quantitative significance of this factor during the evaluation, both because the incidence of benefit replacements is quite low among SSI and elderly food stamp households and also because no relevant data are available across sites. However, program staff at several sites believed that certain features of the cashout issuance procedure contributed to a very low incidence of benefit replacement requests and possible fraud. Factors that were cited as important in reducing possible fraud included: (1) apparently greater awareness and fear of the penalties for cashing forged checks compared with penalties for using ATPs inappropriately; (2) the limited time during which checks must be cashed which, compared with ATPs and stamps, allows for more rapid reconciliation and accounting; and (3) the greater difficulty of intercepting a check in the mail and using it compared with using food stamps in direct stamp issuance sites.

Site staff members also stated that the cashout program was consistent with their view that program recipients, especially the elderly, should be allowed to decide for themselves how to spend their allotments. In addition, the program was seen as very simple and inexpensive to implement.

Program staff stated that they believe recipients generally prefer the cashout approach because it is more convenient. Also, recipients were thought by program staff to prefer being able to shop for food without the embarrassment of paying with food stamps.

The only demonstration feature consistently found by site staff to be unsuccessful was outstationing. This was seen as having a less positive impact, primarily because of the low utilization and productivity of the staff.

[1/] It should be remembered in assessing these opinions of site staff people that all of the sites included in the demonstration had voluntarily applied for participation. Thus, the participating site staff members may have begun the program with a greater predisposition toward the cashout concept than would be the case if cashout were implemented as a national policy.

Food Stamp Program staff were also asked their opinions on the desirability and administrative feasibility of making cashout permanent for SSI recipients and elderly clients. In addition, their views on expanding cashout to the full food stamp caseload were solicited.

Without exception, all staff interviewed were in favor of making cashout permanent for SSI recipients and other elderly households. They reported that such an extension of the program would be very easy to implement and would be positively received by staff and clients. Program staff across the demonstration sites favored extending cashout primarily because of its administrative simplicity and lower operating costs. Staff in Ohio said they would like to have the option of giving clients a choice between cashout or coupons; however, other sites indicated that a permanent dual system would be inefficient and undesirable. Despite these minor differences, all sites strongly endorsed making cashout permanent for their elderly and SSI clients.

Expansion of cashout to the whole Food Stamp Program caseload was viewed by all sites as being administratively easy to implement. The computer programming needed to issue checks rather than ATPs or coupons is generally in place now in the demonstration sites, and therefore only minimal changes would be required. However, while implementing expanded cashout was viewed as a relatively easy task, the sites differed in their opinions with regard to its desirability. Program staff in several sites, specifically New York, Oregon, and Minnesota, generally endorsed cashout but recommended that clients should have a choice of cashout or non-cashout and that program officials should retain the right to make the final determination for each case. In South Carolina, program officials thought expansion was desirable; however, they feared considerable public criticism.

Several sites tended to be negative about expanding cashout, focusing mainly on possible public criticism and political problems from such a move. Concerns about whether the benefits would be used for their intended purpose were also mentioned. Some staff members felt that cash benefits might not be spent on food. This was felt to be a particular concern with regard to younger families, in which children might be deprived of the nutritional benefits of the program if adults in the households chose to spend cash benefits for items other than food. At two of the sites where staff were opposed to full caseload cashout, Vermont and Virginia, it was suggested that it might be valuable to implement a full caseload demonstration to assess the impact of full cashout and to determine how cash benefits would be used by other client groups.

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CHAPTER X: ACCURACY OF MICROSIMULATION ASSUMPTIONS

An important issue in assessing current Food Stamp Program participation rate estimates is how estimated program eligibility rates vary when different assumptions are used to estimate household income and assets. Current program eligibility rate estimates are obtained from a microeconomic simulation model, the Micro Analysis of Transfers to Households [MATH] model [Doyle and Neyland, 1981]. This model and other similar models frequently used to derive national eligibility estimates for federal assistances programs are forced by data limitations to estimate eligibility status on the basis of certain key assumptions about income and assets.[1, 2]

This chapter examines the effect of using alternative income and assets concepts when simulating eligibility for the Food Stamp Program. The survey for the current project provided data both on annual income reported retrospectively and on current monthly income reported prospectively. It also provided data for two asset measures—reported countable assets and a proxy for estimating assets. The annual income data and the data used as a proxy for asset holdings are similar to those currently used to simulate food stamp eligibility. The current income data and the assets data in the survey are similar to those actually used to calculate Food Stamp Program eligibility. Thus, the data set can be used to compare eligibility rate estimates based on varying income and assets concepts.

The basic finding of the analysis reported below is that the use of alternative income and assets concepts does not substantially affect Food Stamp Program eligibility estimates. The results suggest that use of retrospective data may lead to slightly lower estimates of program eligibility than estimates obtained

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[1] The analysis described in this chapter focuses on the affect of alternative income and assets concepts with regard to estimated eligibility rates rather than participation rates because it is in the eligibility calculations that key assumptions are made about income and assets. Once eligibility rates are estimated, participation rates are determined as well, because actual absolute levels of participation are constrained to equal control totals known from program data.

[2] Other models based on similar assumptions include the "KGB" model developed during the late 1970s by the office of the Assistant Secretary for Policy and Evaluation within the Department of Health, Education and Welfare, [Betson, Greenberg, and Kasten, 1979]; the "GUESS" model used by the Social Security Administration to estimate eligibility rates for the SSI program [Worthington, et al., 1981]; and the TRIM model [Wertheimer et al., 1980].

using prospective income and simulated assets. However, the discrepancy in estimated eligible households is only approximately 3.5 percent of total estimated eligibles. In addition, distributions of households among income groups are similar for both retrospective and prospective income. Similar analysis was recently conducted with regard to SSI program eligibility in a study performed for the Social Security Administration (Worthington, et al., 1981). The conclusion of that work was that use of retrospective income and assets data does not significantly affect estimated program eligibility rates.

Below is a brief description of the income and assets concepts considered in this study, followed by a discussion of eligibility rates and distributions of households by net countable income and gross income for alternative income and assets measures. The variable derivation procedures used to support the analysis are described in Volume II, Appendix L.

ALTERNATIVE INCOME AND ASSETS CONCEPTS

All means-tested transfer programs rely on information about household composition and income to determine eligibility and benefits. In the Food Stamp Program, this information is obtained on a monthly prospective basis. Applicants are asked to report their current situation and to estimate what their approximate circumstances will be over the coming months. From this information, "current monthly income" is calculated and monthly food stamp benefits are determined.

In policy analysis work, it is frequently necessary to use data on household income and composition from sources other than program applications to estimate various aspects of program coverage. The Current Population Survey (CPS) for the month of March is often used for this purpose because it is the only regularly occurring national survey that contains sufficient household and person characteristics data to support program eligibility simulations. The CPS is primarily concerned with income received during the previous calendar year, however, and it does not include any direct questions on current or future financial circumstances. Furthermore, although the economic data in the CPS are collected on a retrospective basis, the demographic information and some of the labor force data pertain only to the survey month of March. In order to use these demographic and labor force data, a procedure for estimating current monthly income from annual retrospective CPS data is used. These two methods of determining program coverage—the Food Stamp Program eligibility process and the adjustment of CPS data—are quite different. The first derives income from present and future estimates, and the second derives income from past reports.

Alternative assets concepts are also used when determining Food Stamp Program coverage. Program regulations require an applicant to report assets as well as income; a food stamp caseworker then determines whether eligibility standards have been met. The CPS does not include detailed measures of assets; therefore, when using CPS data to simulate eligibility, a proxy for assets is calculated based on reported income from assets, such as interest and rents.

An important objective of the work reported in this chapter was to analyze the way in which use of retrospective income and an assets proxy may affect net estimated eligibility rates as compared with those that would be obtained if data on current prospective income and actual assets were used. It is therefore of interest to examine eligibility status for the households in this survey as simulated in three ways: (1) using prospective income and reported assets;

[2] using retrospective income and reported assets; and [3] using retrospective income and an assets proxy. Comparison of the simulation results using prospective income and reported assets (PIRA) with those using retrospective income and reported assets (RIRA) allows us to examine the effects of using retrospective income while holding the assets measure constant. Comparison of the results using PIRA with those using retrospective income and an assets proxy (RISA) shows the combined effects of the two key assumptions required when simulating eligibility with a CPS file.

A second objective of the work reported in this chapter was to analyze the effect of retrospective income reporting on estimates of the distribution of income. Hence, it is of interest to compare the distribution of eligible households by income as constructed from the retrospective data reported in the CPS module with the distribution of households by income as constructed from current monthly prospective data.

SIMULATION RESULTS

In this section we present tabular results concerning both sets of research questions outlined above. Prior to reporting these estimates, however, a summary of the characteristics of the sample and the techniques required to weight the sample for the analysis is presented.

Sample With CPS Data

During the participation/eligibility survey pretest, it was found that many respondents objected to being asked both the retrospective income questions and those concerning current income on the grounds that the two sets of questions seemed unnecessarily repetitive. This was particularly troublesome during telephone interviews. (It is easier to establish good rapport with a respondent during an in-person interview.) This pretest experience resulted in a decision to include the CPS questions in only a subsample of the interviews. This ensured respondent cooperation and at the same time allowed an adequate sample to be obtained for the microsimulation analysis. The CPS questions were included in all the field interviews but in only a sample of the telephone interviews. As detailed in Volume II, Appendix L, the resulting sample included 992 interviews that contained CPS data. Item nonresponse to specific income questions further reduced the sample to 587 observations. This reduced sample also made the weights used elsewhere in the report inappropriate for the microsimulation analysis. The weighting used in the present analysis is described below.

As discussed in Chapter VI, the overall survey sample was drawn from two sources, [1] the Social Security Supplemental Security Record (SSR) file, which includes SSI households, and [2] the Social Security Master Beneficiary Record

These sampling considerations are important for the current analysis because they imply that a disproportionate number of the observations in the sample are relatively low income households, many of whom are near the income and assets cutoff levels. Thus, the sample of households in the current data set contains a disproportionate number of borderline cases for which slight errors in reporting and/or slight changes over time in resources could mean the difference between eligibility or ineligibility, and this would tend to raise observed discrepancy rates.

Two types of data adjustments have been made to correct for these sampling considerations. First, in conducting the analysis, the screened-out MBR cases have been put back into the sample with the assumption that the discrepancy rate for such cases is zero. The MBR sample for the current analysis includes 124 mail respondents. Because there were approximately 1.8 screened-out mail respondents (based on the .36 screening rate) for every mail respondent in the sample, the number of ineligible MBR sample members in the analysis was increased by 223 (i.e., 1.8 times 124).

Because all cases screened out on the basis of the mail screener reported that they had income or assets substantially in excess of program limits, it seems reasonable to assume that no matter which assets and income measures were used, these cases would have been determined ineligible for the program. To be sure, this adjustment may to some extent have biased downward the number of discrepancies observed, because it is possible that a small number of discrepancies could have occurred, even with these cases.[1/] However, this potential bias is probably small.

The second correction made to the data involved reweighting them to correct for the oversampling of SSR households. Approximately 8 percent of elderly persons in the population covered by the CPS receive SSI.[2/] To reflect this in the

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1/ While the adjustment described in the text may have biased downward the number of observed discrepancies, it would not necessarily bias the absolute magnitude of the net discrepancy rate in one direction or the other. As discussed later in the text, different types of discrepancies between the different simulation calculations tend to partially offset each other. Thus, an adjustment that increases the frequency of one type of discrepancy could actually decrease the net observed discrepancy rate. Because the mail screening instrument obtained data on current income and assets, it is likely that virtually all of the screened-out cases would have been found ineligible using the current income measure. It is possible, however, that some of these cases might have appeared eligible in calculations based on retrospective data. However, as discussed later in the chapter where the results of the analysis are presented, a modest increase in the number of discrepancies of this type would actually decrease the estimated net discrepancy rate.

2/ Data from the Social Security Bulletin, November 1980, Table M-18, and from the U.S. Census Current Population Reports Series P-60, 1980, Table 12, indicate that approximately 9 percent of persons 65 and older receives SSI. However, tabulations of Income Survey Development Program data suggest that approximately 10 percent of these individuals are institutionalized and would not be covered by the CPS sample frame. Therefore, the 9 percent figure was adjusted downward to 8 percent. The results are not highly sensitive to the exact weighting factor used.

analysis, tabulations were performed separately for the SSR data and for the adjusted MBR data. Overall results were then computed as the weighted average of the SSR tabulations and the MBR tabulations, where the weighting factors are .08 and .92, respectively, reflecting the approximate proportions of SSI recipients and nonrecipients in the overall population.

Comparison of Eligibility Rates

Table X.1 shows the comparison of eligibility status simulated using PIRA and RIRA. The first row of the table shows the households eligible under both procedures. The second and third rows show the households eligible under one but not the other procedure. Finally, the last row shows households that are ineligible under both procedures. Rows 2 and 3 represent cases of discrepancy in results between the two income measures.

From Column 4 of the table, it can be seen that the calculations based on prospective income show 150 eligibles (Row 1 plus Row 2), while those based on retrospective income show 142 eligibles (Row 1 plus Row 3). Thus, the net discrepancy in the number of eligibles between the two simulation methods is eight cases, with the RIRA producing fewer eligibles. This implies that with simulations using retrospective data, for every 142 households deemed eligible, there are an additional 8 not unidentified households that would have been eligible had prospective data been used. Thus, if prospective data are used, the number of eligibles is 5.6 percent (i.e., 8 divided by 142) higher than the simulated number of eligibles if retrospective data are used.[1/]

In Table X.2 the combined effects of using retrospective income and simulated assets are measured. The net number of discrepancies due to the use of both retrospective income and an assets proxy is 5, implying a net discrepancy rate of 3.5 percent.[2/] As derived in Volume II, Appendix L, the standard error associated with this 3.5 estimate is 3.3 percentage points. Thus, the estimated discrepancy rate is not statistically significant.

The findings reported above are consistent with the results obtained by Worthington, et al. (1981) in a similar analysis of the use of retrospective CPS data in simulating eligibility for the SSI program. It was found in that study that "potential biases due to CPS income data and assets proxies . . . were . . small, offsetting, and statistically insignificant." (Summary Volume, p.8.)[3/]

[1/] The tabular data presented in the text display gross as well as net discrepancies in eligibility determinations. It should be emphasized that the gross discrepancies are not accurate measures of the gross discrepancies that result from the use of retrospective data in a full simulation model because they have not been adjusted to compensate for the aging techniques typically used in such models. When a data base has been put through an aging process, records on the adjusted file do not necessarily represent the same individuals as the corresponding records on the unadjusted file. Therefore, comparisons of the retrospective and prospective simulations at the micro level, which are what the gross discrepancies summarize, are not always valid.

[2/] The 3.5 is calculated as the number of discrepancies, 5, divided by 145, the total number of eligibles under the retrospective data simulation, shown in Rows 1 and 3 of Table X.2.

[3/] Worthington, et al. found a tendency to substantially underestimate eligibility in the microsimulation model they tested, but they attributed the bias to factors other than the use of CPS data.

TABLE X.1

COMPARISON OF SIMULATIONS USING RETROSPECTIVE INCOME AND REPORTED ASSETS WITH THOSE USING PROSPECTIVE INCOME AND REPORTED ASSETS

	SSR Sample	Unadjusted MBR Sample	MBR Sample Adjusted to Include Households Screened Out On Basis of Mail Questionnaire[a]	Weighted Totals[b]
Eligible under both retrospective and prospective assumptions	281	125	125	137
Eligible with prospective; ineligible with retrospective	7	13	13	13
Eligible with retrospective; ineligible with prospective	1	5	5	5
Ineligible under both retrospective and prospective assumptions	18	137	360	333
Total Sample	307	280	503	488

[a] Computed from Column 2 by increasing the number of ineligible MBR cases by 223. [See text for explanation of adjustment.]

[b] Computed as 8 percent of Column 1 plus 92 percent of Column 3.

TABLE X.2

COMPARISON OF SIMULATIONS USING RETROSPECTIVE INCOME AND SIMULATED ASSETS WITH THOSE USING PROSPECTIVE INCOME AND REPORTED ASSETS

	SSR Sample	Unadjusted MBR Sample	Sample Adjusted to Include Households Screened Out On Basis of Mail Questionnaire[a]	Weighted Totals[b]
Eligible under both retrospective and prospective assumptions	279	121	121	134
Eligible with prospective; ineligible with retrospective	9	17	17	16
Eligible with retrospective; ineligible with prospective	6	11	11	11
Ineligible under both retrospective and prospective assumptions	13	131	354	327
Total Sample	307	280	503	488

[a] Computed from Column 2 by increasing the number of ineligible MBR cases by 223. [See text for explanation of adjustment.]

[b] Computed as 8 percent of Column 1 plus 92 percent of Column 3.

Eligible Households by Net Income Groups

Table X.3 shows distributions of observations eligible for food stamps arrayed by net income constructed from prospective data [for those eligible under PIRA] and by net income constructed from retrospective data [for those eligible under RISA]. Because these data are only for eligibles, they were not adjusted to include MBR cases screened out of the sample. However, they were reweighted to compensate for the different sampling rates used for the SSR and MBR groups. The figures in the last five columns of the table reflect the weighted distributions using the two different income measures. Both absolute counts and percentages are included. These figures do not show substantial deviations in the results between the two simulations. The distribution across the income brackets shows a heavy concentration of units between $100 and $399 using both income measures, with retrospective data producing slightly fewer units in the $200-299 range and slightly more units in the $100-199 range. There are no eligible households with a net monthly income of $500 and over using either of these income measures.

Table X.4 shows the distribution of gross income for all households. It has been adjusted to include the MBR cases screened from the sample and reweighted to adjust for the sampling difference between the SSR and MBR groups. These figures show only minor deviations for each income range. Both distributions show a heavy concentration of households with monthly gross incomes of $750 or more (53.4 percent for prospective and 55.3 percent for retrospective). All units falling into this category are ineligible, except for one household with a prospective gross income in the $750-999 range.

Conclusions

The results presented in this chapter suggest that at least for the elderly population, the use of retrospective data such as those available for the March CPS, does not have a substantial effect on estimated Food Stamp Program eligibility rates. It appears that use of retrospective data produces fewer eligible households, on average, than does the use of current prospective income, but the level of discrepancy is quite small. When viewed as a function of the simulated eligibles, the estimated discrepancy rate is approximately 3.5 percent and is not statistically significant. The two methods of estimating income lead to quite similar estimated frequency distributions of this variable.

The results presented here are encouraging but should be used with caution due to the limited sample size. It would be interesting to repeat this analysis on a larger data set that includes a broader population base to see if the conclusions remain valid. No survey has yet been undertaken that combines an instrument designed precisely for such a study with a larger sample size. However, a similar test might be conducted using the 1979 Income Survey Development Program (ISDP) Research Panel. With the observations for Wave II, the user could construct a CPS-type measure of annual income and labor force activity for calendar year 1979. These data, as well as monthly data from that wave, could be used to produce two estimates of eligibility for one month in that year. This test would not be subject to all of the problems associated with use of the CPS, partly because the annual data from the ISDP Survey would not have the recall problems the CPS has. However, this procedure could be used to evaluate the techniques of constructing monthly income from annual data that is required when processing CPS files.

TABLE X.3

DISTRIBUTION OF ELIGIBLE HOUSEHOLDS BY NET COUNTABLE INCOME USING PROSPECTIVE AND RETROSPECTIVE DATA

	SSA		MBR		Weighted Total Number a/		Weighted Total Percentages		
Monthly Income	Prospective income	Retrospective income	Prospective income	Retrospective income	Prospective income	Retrospective income	Prospective income	Retrospective income	Difference
$0	22	26	13	15	14	16	9.3%	11.1%	-1.8%
$1 - 99	76	63	22	13	26	17	17.3	11.8	5.5
$100 - 199	114	102	27	37	34	42	22.7	29.2	-6.5
$200 - 299	55	74	40	29	41	33	27.3	22.9	4.3
$300 - 399	16	18	28	29	27	28	18.0	19.4	-1.4
$400 - 499	5	2	8	9	8	8	5.3	5.9	-.3
≥ $500	0	0	0	0	0	0	0.0	0.0	0.0
TOTAL	288	285	138	132	150	144	100.0	100.0	

NOTE: Figures may not sum to totals due to rounding error.

a/ Computed as 8 percent of the SSA plus 92 percent of the MBR totals.

TABLE X.4

DISTRIBUTION OF HOUSEHOLDS BY GROSS MONTHLY INCOME USING PROSPECTIVE AND RETROSPECTIVE DATA

	SSR		MBR		Adjusted MBR [a]		Weighted Total: Number [b]		Weighted Total: Percentage		
Monthly Income	Prospective income	Retrospective income	Prospective income	Retrospective income	Prospective income	Retrospective income	Prospective income	Retrospective income	Prospective income	Retrospective income	Difference
≤ $199	20	23	13	13	13	13	14	14	2.9%	2.9%	0.0%
$200 - 299	148	125	34	40	34	40	43	47	8.8	9.6	-.8
$300 - 399	100	119	62	44	62	44	65	50	13.3	10.2	3.1
$400 - 499	19	19	40	46	40	46	38	44	7.8	9.0	-1.2
$500 - 599	6	3	33	30	33	30	31	28	6.4	5.7	.7
$600 - 749	6	8	38	37	38	37	36	35	7.4	7.2	.2
≥ $750	7	10	59	70	282	293	260	270	53.4	55.3	-1.9
TOTAL	307	307	280	280	503	503	487	488	100.0	100.0	

NOTE: Figures may not sum to totals due to rounding error.

[a] Computed from Columns 3 and 4 by increasing the number of MBR cases with gross income in excess of $750 by 223. (See text for explanation of adjustment.)

[b] Computed as 8 pecent of the SSR plus 92 percent of the MPR totals.

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